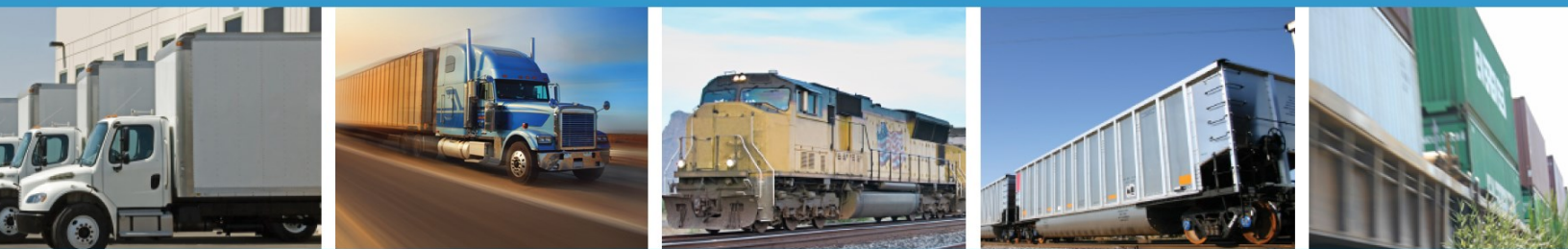


## Equipment Focus

Truck & Trailer Outlook  
Rail Equipment Outlook

## Freight Focus

Shippers Update  
Trucking Update  
**Rail Update**  
Intermodal



# Rail Update

*January 2022*



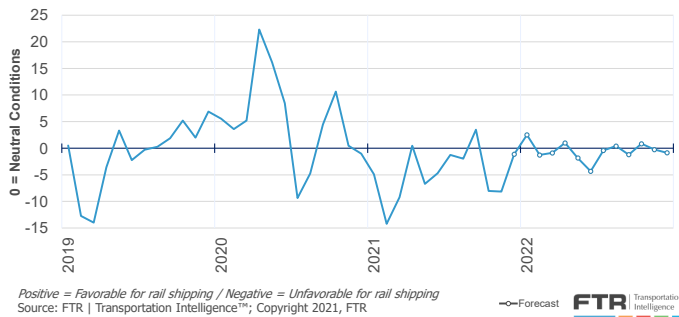
# Rail January 2022

*COMMENTARY (pg 23):*  
**Carload faced an interesting 2021 with modest growth.**  
*Growth will slow further this year.*

**There was little movement in the carload markets as a flat to slightly positive growth trajectory remains in place for 2022.**

## FTR Rail Shippers Conditions Index

*RCI is a broad measure of railroad conditions – volumes, rates, service, etc.*

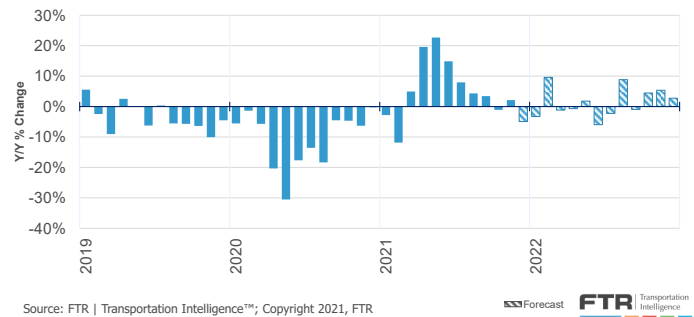


The Rail Shippers Conditions Index is expected to hold at neutral readings for most of 2022, as slow freight growth and a slowing economy keep conditions rangebound.

Service and rates should hopefully improve over the course of the year as volumes hold steady.

*See page 4 for more on rail conditions...*

## Rail Carloads Outlook



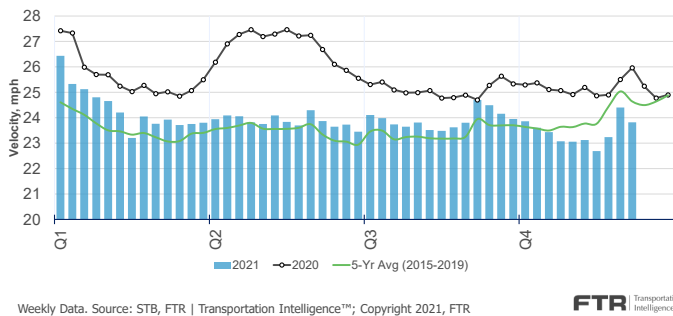
Except for the easy February comparison, the carload outlook is nearly flat through the first three quarters before significant growth comes back in the fourth quarter.

A significant number of factors could reduce the expected fourth quarter growth rates.

*See page 2 for more on the carloads outlook...*

## Velocity: Total Rail

*Weekly Reported Train Speed, Industry Average*



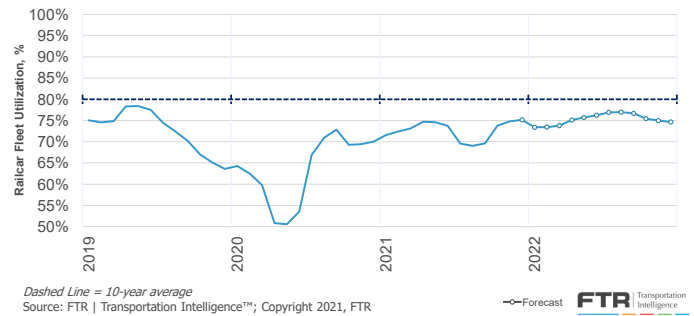
Velocity did not change dramatically in the last few weeks, remaining well below its five-year average.

Velocity gains during the holiday week were noticeable but were not enough to get present levels back to historical averages.

*See page 3 for more on rail service...*

## Railcar Utilization Outlook

*Share of railcar equipment engaged in freight hauling*



The railcar utilization outlook is little changed this month as the expectation of a slow growth freight environment has not materially changed.

It is likely that utilization remains below its long run average of 82% through 2022.

*See page 4 for more on capacity and utilization...*



**Freight Indicators & Outlook**

- Outlook for growth in 2022 is little changed this month.
- Economically-sensitive volumes remain sluggish.

The slow growth expected in the carload market was little changed in the latest month. Overall gains are expected to be in the 1-2% range compared with 2021. This would mark the second consecutive year of volume growth, but at a lower rate than it has historically moved.

Over the last two decades, carload volumes have increased above the rate of GDP growth, but that is unlikely to be the case in 2021 and 2022. The shift to below GDP growth for the carload markets suggests that market share is moving to truck for those commodities that have the option as rail service continues to struggle.

Of particular concern for carload markets is the fact that economically-sensitive freight categories have trended worse than the overall carload market and are expected to remain in that posture for 2022. This category eliminates the effects that coal, agriculture, and petroleum products can have on the overall carload growth picture.

Coal is unlikely to maintain the volumes it posted in 2021 as a mild start to winter dented heating demand. If lower natural gas prices persist as we head into spring, it will put further pressure on prices and make coal less competitive.

**N.A. Rail Carloads Summary**

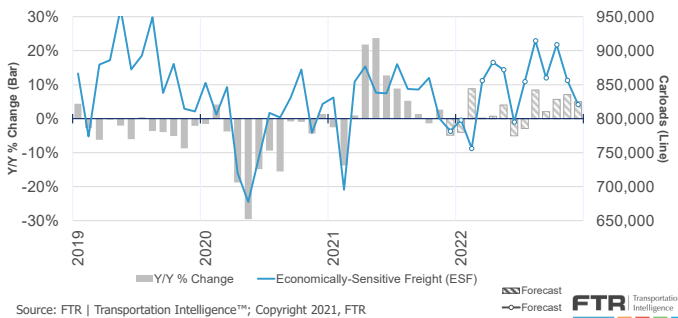
Traffic Group	Annual Growth Rate				
	2019	2020	2021	2022	2023
	Forecast				
Ag Products	-2.8%	4.8%	-1.9%	4.7%	6.2%
Automotive	-1.8%	-20.4%	-0.6%	13.3%	7.7%
Chemicals	2.9%	-7.7%	2.5%	1.0%	2.2%
Coal	-8.4%	-23.8%	9.8%	-3.7%	-5.4%
Forest Products	-5.9%	-5.6%	3.9%	1.5%	1.7%
Metals	-4.0%	-9.7%	14.4%	-1.4%	1.0%
Nonmetallic Minerals	-5.2%	-13.0%	3.1%	2.2%	3.9%
Other	0.8%	-3.0%	-0.9%	3.9%	1.9%
<b>MEMO:</b>					
Economically Sensitive Freight	-3.6%	-11.1%	4.4%	1.4%	1.8%
<b>Total</b>	<b>-3.6%</b>	<b>-11.1%</b>	<b>4.4%</b>	<b>1.4%</b>	<b>1.8%</b>

Source: FTR | Transportation Intelligence™; Copyright 2022, FTR

See pages 8-12 for more detailed analysis by traffic group...

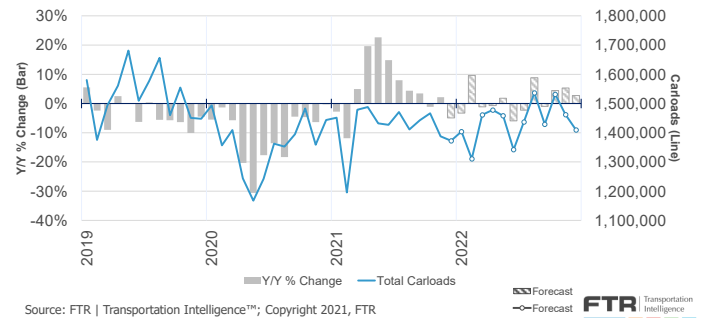
See pages 16-22 for charts and graphs by commodity...

**Carload Outlook: Economically-Sensitive Freight**



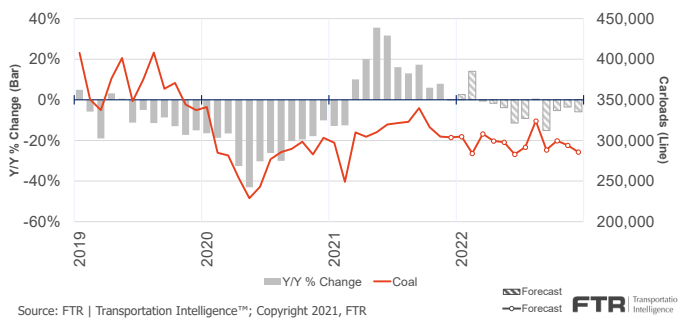
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Carload Outlook: Total**



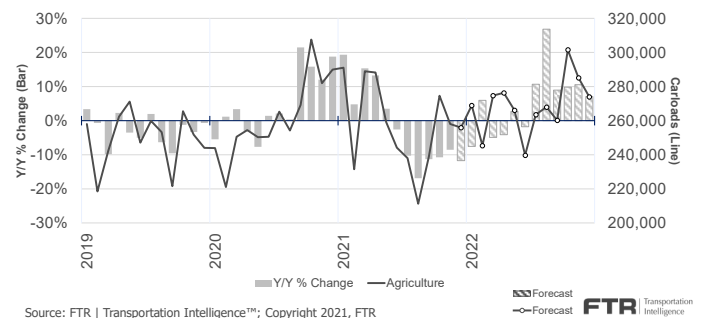
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Carload Outlook: Coal**



Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Carload Outlook: Ag Products**



Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



*Reported train metrics are imperfect indicators of service quality, in that they only deal with line-haul (not terminal) operations and also say nothing about service consistency. However, when speeds drop sharply, it is a good indication of service issues. Because of differences between railroads, these metrics should not be compared one to another; rather, each railroad's current performance should be viewed in the context of previous historical trends.*

**Carload Service Overview**

	Latest Week	W/W %	Y/Y %
<b>Velocity, mph</b>	<b>23.82</b>	<b>-2.4%</b>	<b>-5.6%</b>
<b>Dwell Time, hours</b>	24.57	-1.9%	14.7%
<b>Cars On Line, 000s</b>	1,005.2K	0.6%	3.2%

w/w = week-over-week / y/y = year-over-year

Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR

**Service Metrics**

- Velocity showed its typical seasonal holiday behavior, but these gains were not enough to get back to five-year average expectations.
- Dwell time also dipped for the holiday week, but jumped back up to its five-year average immediately after the holiday.
- Cars online held at the elevated levels that have been established in recent weeks, as shippers add more equipment to counter the effects of weak service and longer cycle times.

The weak service metrics are not promising for shippers as the winter season dawns. Winter is historically the most difficult time for the railroads to maintain service levels, and any deterioration from present service levels would put carriers in a worse position than the historical average.

Norfolk Southern (NS) recently told the Surface Transportation Board that their recent service is not up to their own or their customers' expectations and that they are working to improve it over the coming quarters. Shippers have said there is wide variation in service between carriers, and NS is one of the carriers that has been acutely effected.

One of the major choke points for rail service issues is operating employee counts, and the carriers have far fewer employees qualified as conductors and engineers now than before the implementation of Precision Scheduled Railroading principles. Shippers have noted that in NS' case it appears that their freight is bypassing certain facilities that are congested or lack sufficient operating crews.

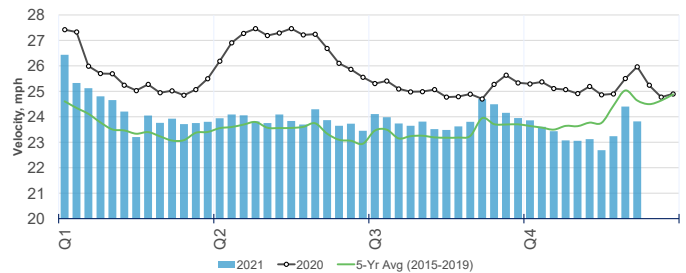
One of the reasons it takes so long for any railroad to improve its manpower situation is that it takes six to nine months for a new hire to be fully licensed and qualified on the federal requirements to run a train efficiently.

Shippers had largely avoided putting more cars into the congested system earlier in the year. Over the last quarter, however, the number of cars online has increased. Shippers are hoping to meet strong demand and offset the effects of longer cycle times by adding equipment to the network.

See pages 13-15 for railroad specific charts on service metrics...

**Velocity: Total Rail**

Weekly Reported Train Speed, Industry Average

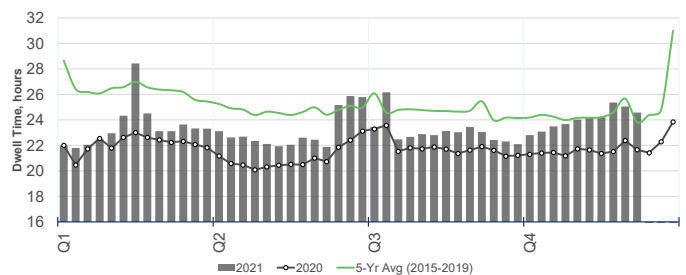


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: Total Rail**

Weekly Reported Terminal Dwell Time, Industry Average

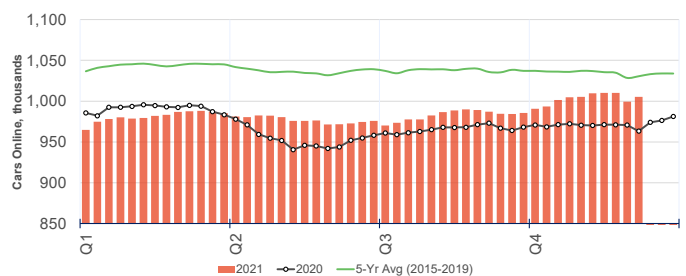


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Cars Online: Total Rail**

Weekly Reported Cars Online, Industry Total



Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR





**Carrier Conditions**

- Rail Shippers Conditions Index envisions a year with a neutral environment for most of 2022.
- Railcar utilization is little changed this month, with the expectation remaining in place that it will hold near just below its long run average of 82% over the course of 2022.
- Expectations for a 2% rate increase is highly effected by mix shifts at the carriers and will be well above that for some commodities and lanes.

The **Rail Shippers Conditions Index** will hold neutral ground during 2022, as a slow growth freight market will limit the variation in shipper conditions over the course of the year. The slow growth volume background will also allow service levels to increase and the system to catch up after 18 months of ongoing disruption.

**Railcar utilization** weakened a little this month, but the expectation remains in place that it will hold just below its long run average of 82% for much of 2022. Improved service could lead to more idle equipment as the year goes on if shippers are able to remove cars from active service as cycle times improve. Hopefully the service improvement will support future freight movements, but that is unlikely to occur during 2022.

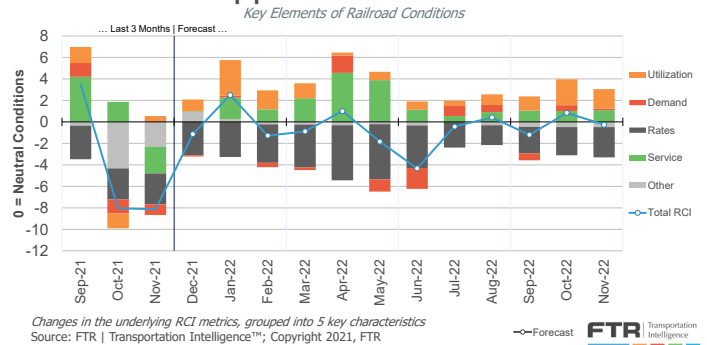
A headwind for utilization next year could be a quicker than expected return to a weak coal market that sidelines open-top hoppers early in 2022. Natural gas prices off their 2021 highs, near \$6/mmBtu to less than \$4/mmBtu as the year closes, could push more utilities back toward gas and away from coal.

**Rail rates** are expected to have their rate of growth slow over the coming months and quarters for carload movements, but remain in positive territory next year compared with present levels.

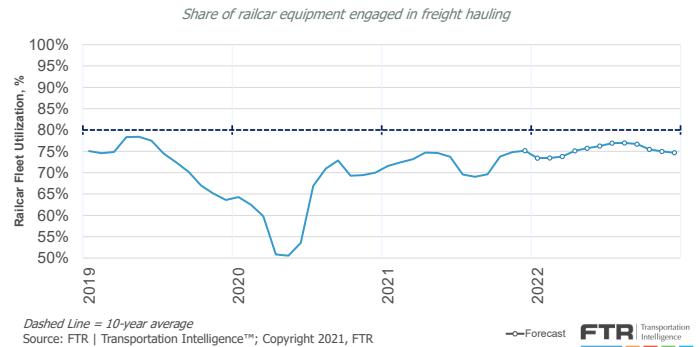
The present expectation for carload rate growth of 2% next year is likely to be too low as inflation pressures labor and materials costs higher.

Intermodal rates will slow dramatically over the first half of 2022 and approach flat by June.

**Rail Shippers Conditions Index**



**Railcar Utilization Outlook**



**Rail Rate Overview**

Index, 2008Q1 = 100	Q2'21	Q3'21	Q4'21	2022	2023
		F	F	F	F
<b>Rail Rate Index (excludes FSC)</b>	<b>154.69</b>	<b>155.34</b>	<b>155.92</b>	<b>158.32</b>	<b>161.94</b>
Rate exc. FSC, y/y %	3.2%	1.1%	1.7%	2.1%	2.3%
Rate w/ FSC, y/y %	5.6%	4.4%	5.8%	3.0%	2.0%

F = Forecast / FSC = Fuel Surcharge

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Public Railroad Carrier Data**

Revenue, income, costs, and rates

Q2'21	Revenue	Net Income	Total Costs	Operating Ratio	Class I Operating Revenue	Class I FSC Revenue	Rev. per Tonmile (\$/tm)	Rev. per Tonmile xFSC (\$/tm)
\$ (Millions)	\$17,277	\$5,692	\$10,593	61.3%	\$18,581	\$1,125	\$0.0476	\$0.0447
Q/Q%	6.0%	27.9%	4.0%	-1.9%	7.7%	61.2%	2.4%	0.2%
Y/Y%	25.0%	71.8%	13.8%	-8.9%	30.0%	100.5%	5.6%	3.2%

Source: Company reports, FTR | Transportation Intelligence™; Copyright 2021, FTR -- FSC = Fuel Surcharge



**Summary**

The economy is showing signs of a rebound in Q4 after a slower Q3. Stimulus checks ignited consumer spending in the first half of 2021, and both consumers and businesses contributed to a spike in demand for goods. Overwhelmed supply chains contributed to the jump in inflation. 2022 will likely be a year of re-balancing as aggregate demand for goods cools and spending shifts back to services. This will slow inflation but not quickly enough for the Federal Reserve to avoid taking steps to rein it in. The economy has sturdy fundamentals with solid corporate and household balance sheets. Omicron could slow supply chain progress and force stronger Fed action.

**Consumer**

Retail sales remained healthy in November, although growth was not as strong as October. Total sales increased 0.3% in November following a 1.8% advance in October. Performance was mixed in November with advances in gas stations, grocery stores, and sporting goods stores, and declines in department stores and electronics and appliance stores. The year-over-year rate increased to 18.2%, up from 16.3% in October. Some of the slower growth in November can be attributed to an earlier pickup in holiday shopping. A slower pace for goods is expected as spending shifts to services. Consumption will remain healthy in 2022.

**Manufacturing**

The ISM manufacturing index decreased to 58.7 in December from 61.1 in November. There was a modest slowing of the growth in new orders and production. The index components related to prices and supplier deliveries saw notable drops, suggesting continuing improvement in supply chain performance. The outlook for production is decent. Industrial production rose 0.5% in November, following a 1.7% advance in October. Manufacturing advanced 0.7%, in part fueled by a 2.2% increase in auto output. The outlook for the industrial sector is bright, and inventories are low. Near-term prospects will be driven by supply chain improvements.

**Residential Construction**

New residential investment increased more than expected in November. Housing starts increased by 11.8% in November to an annual pace of 1.68 million. Single-family starts leaped 11.1% to an annual pace of 1.17 million. The multi-family sector saw starts at 491,000. Future activity looks good as total permits rose 3.6% to 1.712 million. Strong demand, low inventories, and still-low interest rates will support activity. Prices are high, but there are signs of moderation. The number of houses started but not completed is at high levels. Shortages of labor and building materials are still present, but there are indications that the situation is improving.

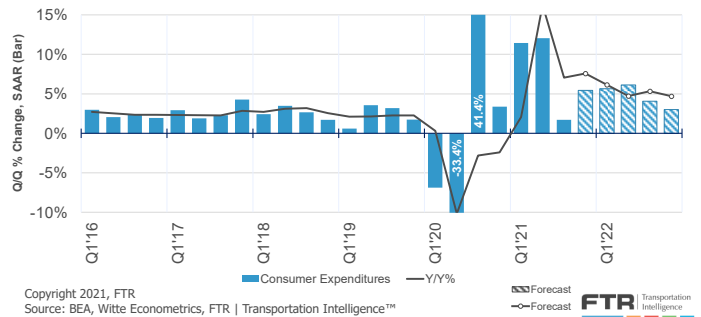
**Economic Outlook Overview**

Q/Q % Change, SAAR	Q3'21	Q4'21F	2021F	2022F
<b>Real Gross Domestic Product (GDP)</b>	2.1%	4.7%	5.5%	4.5%
<b>Industrial Production (IP)</b>	3.8%	5.6%	5.6%	4.5%
<b>Goods Transportation Sector (GTS)</b>	-2.9%	6.5%	10.7%	5.3%

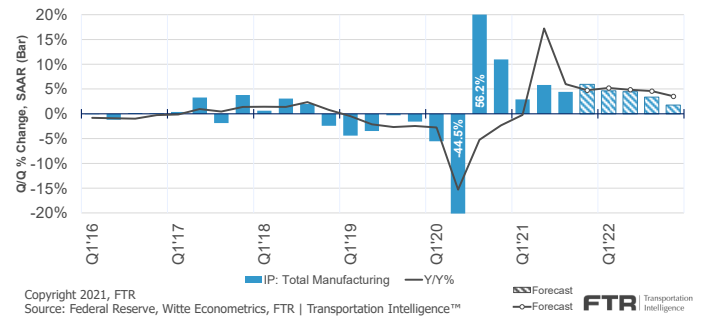
F = Forecast

Source: Witte Econometrics, FTR; Copyright 2021, FTR

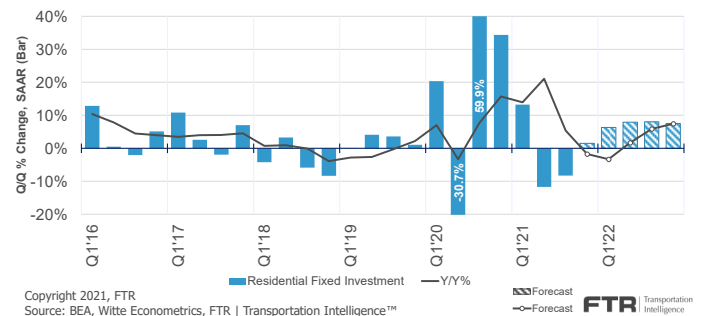
**GDP: Consumer Expenditures**



**IP Outlook: Manufacturing**



**GDP: Residential Investment**





**Monthly Business & Economic Highlights**

*November's Economic Environment:*

- *November had solid results and shows an economy poised for more gains as long as the consumer doesn't get spooked.*

	Aug	Sep	Oct	Nov	Impact	Y/Y Chg.	Comments
<b>INDUSTRIAL PRODUCTION</b>							
Total Industrial Production	-0.1%	-1.0%	1.7%	0.5%	▲	5.3%	The gains continued in November, but not at the pace that was achieved in October. There were solid results throughout the industrial arena.
Total Manufacturing	-0.6%	-0.5%	1.4%	0.7%	▲	4.8%	
Automobile and Light Duty Motor Vehicle Production	-5.6%	-13.4%	16.7%	4.6%	▼	-11.5%	
<b>BUSINESS INDICATORS</b>							
Unemployment Rate	5.2%	4.8%	4.6%	4.2%	▲	-250 bp	Weaker-than-expected payroll data was partially offset by strong data from the household survey. Despite supply and labor challenges, businesses are showing positive results.
Job Creation (Payroll Employment)	483k	379k	546k	210k	▲	5,802k	
ISM Manufacturing Index	59.9	61.1	60.8	61.1	▲	360 bp	
<b>CONSUMER INDICATORS</b>							
Consumer Confidence (Conference Board)	115.2	109.8	111.6	109.5	●	16.6 pts	Sentiment has been volatile due to the rising and waning of infection levels. Inflation concerns are also beginning to weigh on expectations, but sales activity remains elevated.
Housing Starts	0.7%	-1.5%	-3.1%	11.8%	▲	8.3%	
Retail Sales	1.2%	0.7%	1.8%	0.3%	▲	18.2%	
Consumer Price Index	0.3%	0.4%	0.9%	0.8%	▼	6.9%	
<b>OIL AND FUEL</b>							
National Avg. Diesel/Gal.	\$3.350	\$3.384	\$3.612	\$3.727	▼	53.2%	Fuel prices were notably elevated in November. They may have peaked for the moment as oil prices have dropped.
W. Texas Int. Crude Oil (\$Bbl.)	\$67.73	\$71.65	\$81.48	\$79.15	●	93.3%	

Impacts: ▲ = Positive / ▼ = Negative / ● = Neutral

Source: Federal Reserve, BLS, ISM, Conference Board, Census Bureau, EIA, FTR | Transportation Intelligence™; Copyright 2022, FTR

**Employment**

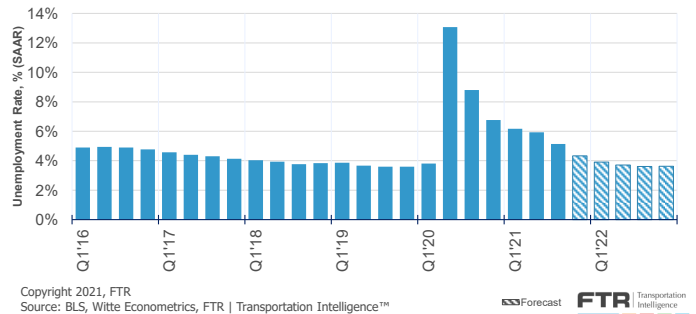
The U.S. economy added just 199,000 payroll jobs, seasonally adjusted, in December for the weakest gain of 2021. The November job gain was revised slightly upward, but the two months saw the year's slowest growth. However, the broader employment picture is more complicated. The household survey, which measures total employment rather than just payroll jobs, showed much stronger gains in November and December. Also, the labor participation rate is the highest of the pandemic at 61.9%. The national unemployment rate declined to 3.9%. With job quits at a record high, we could be seeing a modest shift in the labor market away from payroll employment.

**Forecast Risks**

The economic recovery has produced supply chain and labor shortages that are feeding inflation. A great deal of the fuel for inflation comes from the unexpectedly quick rebound in demand for goods. The stimulus packages added fuel to the fire. Fading stimulus and the shift of spending back to services could weaken goods demand and help clear ports and slow overall inflation. The problem is that it will take more time than the Fed will tolerate. The biggest near-term risk is the omicron variant, which could slow the progress in balancing supply chains and feed inflation. This raises pressure on the Fed to act with more force than needed.

See page 7 for detailed economic outlook...

**Unemployment Rate Outlook**



Copyright 2021, FTR  
Source: BLS, Witte Econometrics, FTR | Transportation Intelligence™

Forecast FTR | Transportation Intelligence™

**Economic Outlook Probabilities**

*GDP Forecast Confidence Levels*

	Next 4 Quarters		Following 2 Years	
	GDP Range	Probability	GDP Range	Probability
<b>Faster Growth</b>	> 7%	15%	> 3%	25%
<b>Base Forecast</b>	<b>5.0%</b>	<b>60%</b>	<b>2.5%</b>	<b>50%</b>
<b>Slower Growth</b>	< 3%	25%	< 2%	25%

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**U.S. Economic & Industrial Outlook**

*Forecasts of key economic data*

	2021				2022				Annual			
	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22	Q4'22	2020	2021	2022	2023
<i>F = Forecast</i>				F	F	F	F	F		F	F	F
<b>Gross Domestic Product (SAAR)</b>												
<b>Real GDP</b>	<b>6.3%</b>	<b>6.7%</b>	<b>2.1%</b>	<b>4.7%</b>	<b>5.2%</b>	<b>5.3%</b>	<b>3.9%</b>	<b>2.6%</b>	<b>-3.4%</b>	<b>5.5%</b>	<b>4.5%</b>	<b>2.8%</b>
Consumer Expenditures	11.4%	12.0%	1.7%	5.4%	5.7%	6.1%	4.1%	3.0%	-3.8%	8.0%	5.2%	3.2%
Residential Fixed Investment	13.3%	-11.7%	-8.3%	1.5%	6.3%	7.9%	8.0%	7.5%	6.8%	9.1%	2.8%	6.7%
Change-Business Inventories	-177.1	-80.2	95.4	43.3	30.0	30.0	33.1	0.3	-1.6	1.1	-1.4	0.6
Real Exports of Goods	-1.4%	6.4%	-5.8%	3.3%	3.2%	3.1%	3.1%	3.1%	-10.2%	6.3%	2.2%	3.1%
Real Imports of Goods	10.6%	4.3%	-0.1%	6.5%	6.3%	7.7%	7.3%	5.5%	-5.6%	13.8%	5.7%	5.7%
Goods Transportation Sector	10.0%	5.2%	-2.9%	6.5%	6.7%	7.4%	6.8%	4.5%	-3.1%	10.7%	5.3%	4.6%
CPI Index	3.7%	8.4%	6.6%	5.2%	3.5%	3.8%	4.0%	3.5%	1.2%	4.5%	4.6%	3.5%
<b>Housing Starts - Millions (SAAR)</b>	<b>1.60</b>	<b>1.59</b>	<b>1.56</b>	<b>1.59</b>	<b>1.60</b>	<b>1.62</b>	<b>1.62</b>	<b>1.64</b>	<b>1.40</b>	<b>1.58</b>	<b>1.62</b>	<b>1.64</b>
% Change (SAAR)	6.1%	-2.6%	-8.1%	8.2%	4.3%	3.9%	1.5%	3.2%	8.1%	13.3%	2.4%	1.4%
<b>Auto Sales - Millions (SAAR)</b>	<b>16.8</b>	<b>16.9</b>	<b>13.3</b>	<b>12.9</b>	<b>13.9</b>	<b>14.8</b>	<b>15.4</b>	<b>15.6</b>	<b>14.5</b>	<b>15.0</b>	<b>14.9</b>	<b>15.7</b>
3 Month T-Bill Rate, %	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.4%	0.4%	0.0%	0.2%	0.7%
Moody AAA Bonds, %	2.7%	2.9%	2.6%	2.7%	2.8%	2.8%	2.9%	3.0%	2.5%	2.7%	2.9%	3.1%
Unemployment Rate, %	6.2%	5.9%	5.1%	4.3%	3.9%	3.7%	3.6%	3.6%	8.1%	5.4%	3.7%	3.6%
Federal Surplus, \$ (SAAR)	-\$4,089	-\$3,313	-\$2,250	-\$1,696	-\$1,533	-\$1,449	-\$1,414	-\$1,431	-\$3,110	-\$2,837	-\$1,457	-\$1,458

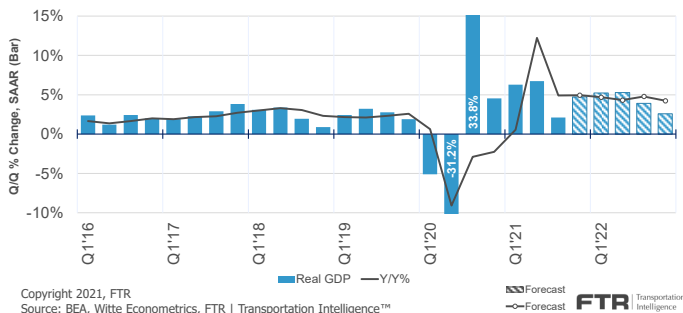
	2021				2022				Annual			
	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22	Q4'22	2020	2021	2022	2023
<i>F = Forecast</i>				F	F	F	F	F		F	F	F
<b>Industrial Production (SAAR)</b>												
<b>Total IP</b>	<b>4.0%</b>	<b>6.5%</b>	<b>3.8%</b>	<b>5.6%</b>	<b>4.7%</b>	<b>4.5%</b>	<b>3.2%</b>	<b>1.8%</b>	<b>-7.2%</b>	<b>5.6%</b>	<b>4.5%</b>	<b>1.9%</b>
Manufacturing, Total	2.9%	5.8%	4.4%	6.0%	4.7%	4.5%	3.4%	1.8%	-6.4%	6.6%	4.6%	1.8%
Manufacturing, Non-Durables	-1.1%	12.9%	0.4%	5.5%	4.4%	3.7%	2.7%	1.4%	-4.4%	4.4%	4.0%	1.5%
Manufacturing, Durables	6.7%	-0.2%	8.3%	6.4%	4.9%	5.2%	3.9%	2.0%	-8.2%	8.6%	5.0%	2.2%
Mining	7.3%	22.1%	-0.4%	13.6%	5.7%	5.1%	4.4%	3.0%	-14.2%	2.9%	6.8%	2.7%
Utilities	8.7%	0.3%	5.3%	-6.2%	3.8%	4.5%	1.2%	1.1%	-3.4%	2.5%	1.4%	1.6%

Q/Q % Change, SAAR // F = Forecast

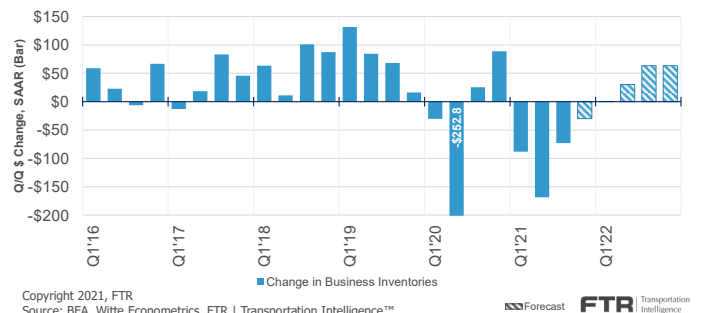
SAAR is Seasonally Adjusted Annual Rates or Seasonally Adjusted Quarter to Quarter Changes at Annual Rates.

Source: Witte Econometrics, Federal Reserve, BEA, FTR | Transportation Intelligence™; Copyright 2021, FTR

**Real GDP Outlook**



**GDP: Business Inventories**







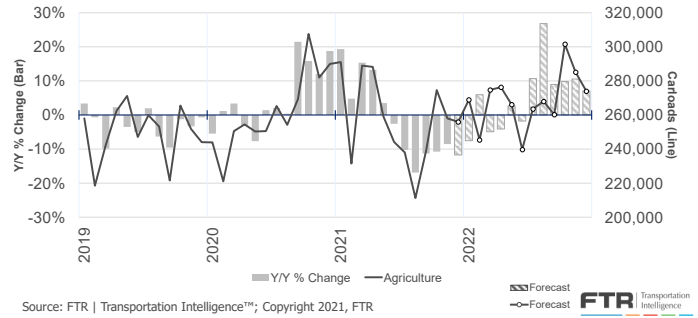
### Ag Products: Rebound possible in 2022

After a decline in 2021 of less than 2% compared with a tough comparison in 2020, the agricultural products space should grow in 2022 and 2023.

While the last few months of 2021 have been disappointing from a volume perspective, at least some of that can be explained away by a lower than expected Canadian harvest. Extreme heat this summer on the Canadian prairies dented yields.

The expectation for growth in this sector has come down from last month as expectations for volumes over the first two months of the year have weakened. It is now expected that most of the volume powering that growth will come once the harvest is made next fall.

Carload Outlook: Ag Products



#### Traffic Group: Agricultural Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Ag Products</b>	<b>258.00</b>	<b>255.95</b>	<b>268.98</b>	<b>688.15</b>	<b>788.53</b>	<b>789.10</b>	<b>3,079.7</b>	<b>3,223.7</b>	<b>3,424.9</b>
<b>P/P % Change</b>	-6.0%	-0.8%	5.1%	-13.1%	14.6%	0.1%			
<b>Y/Y % Change</b>	-8.5%	-11.7%	-7.6%	-12.7%	-10.3%	-2.8%	-1.9%	4.7%	6.2%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

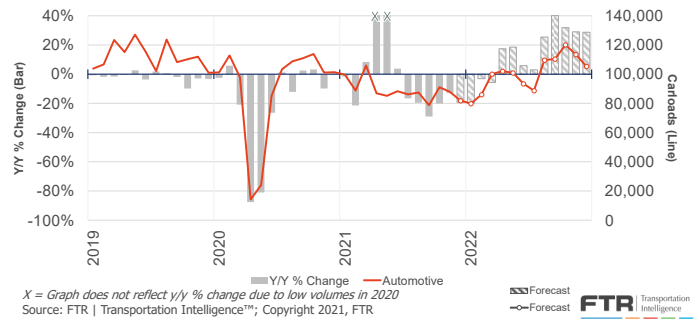
### Automotive: Waiting for supply constraints to ease

This year is expected to see a strong gain in volumes, but the timing and magnitude of those gains will depend solely on when the supply chain eases for semiconductors and other parts.

It does not appear that the first part of the year will be much different from how 2021 ended for automotive; but, as the supply chain eases, volumes should steadily increase from the second quarter onward.

There is substantial risk in our current forecast if the automotive supply chain remains gummed up longer than expected and vehicles do not start flowing until the middle of the third quarter or later. Such a development would obviously cap growth expectations at a much lower level.

Carload Outlook: Automotive



X = Graph does not reflect y/y % change due to low volumes in 2020

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

#### Traffic Group: Automotive

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Automotive</b>	<b>87.96</b>	<b>81.85</b>	<b>79.89</b>	<b>252.51</b>	<b>260.85</b>	<b>266.00</b>	<b>1,068.3</b>	<b>1,210.2</b>	<b>1,303.0</b>
<b>P/P % Change</b>	-3.4%	-6.9%	-2.4%	-3.1%	3.3%	2.0%			
<b>Y/Y % Change</b>	-12.9%	-19.3%	-19.9%	-21.8%	-17.5%	-9.7%	-0.6%	13.3%	7.7%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



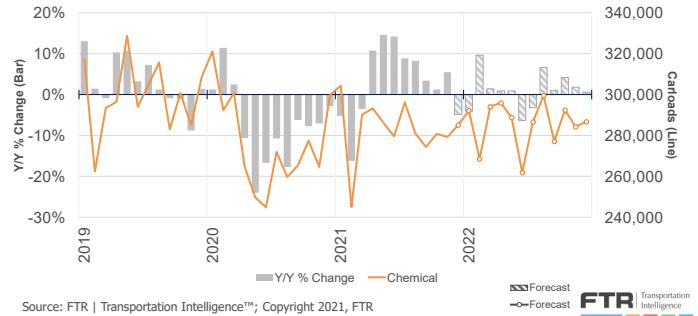
### Chemicals: Growth rates slowing over the next year

The chemicals sector is expected to have its growth rate slow in 2022 before picking back up in 2023, but that may be too pessimistic in the near term.

There has been an elevated level of uncertainty around natural gas prices over the last few months as prices rose to \$6/mmBtu, but they have since retreated back closer to \$4/mmBtu which should ease chemical producers' concerns about feedstock prices.

Chemical carloads have run at healthy levels for much of 2021 with the exception of weather-related disruptions in February and September. More normal feedstock prices should support growth in 2022 that may exceed present expectations.

Carload Outlook: Chemicals



### Traffic Group: Chemicals

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Chemicals</b>	<b>279.22</b>	<b>285.07</b>	<b>292.11</b>	<b>851.43</b>	<b>845.11</b>	<b>854.65</b>	<b>3,395.0</b>	<b>3,427.8</b>	<b>3,502.3</b>
<b>P/P % Change</b>	-0.6%	2.1%	2.5%	-0.9%	-0.7%	1.1%			
<b>Y/Y % Change</b>	5.5%	-4.9%	-4.0%	6.8%	0.4%	1.8%	2.5%	1.0%	2.2%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

### Coal: Weaker gas prices add downside risk to the forecast

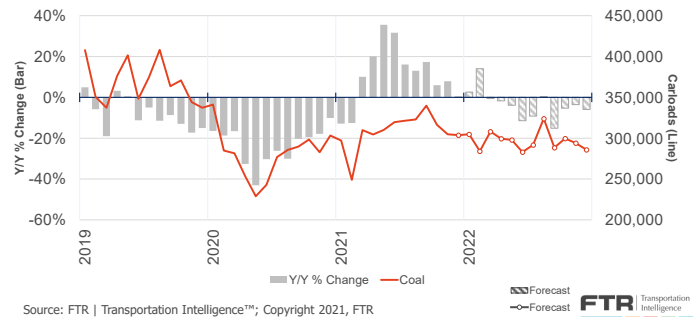
Coal is the commodity that will experience the flip side of lower natural gas prices. The lower price point for the competing generation fuel will make coal less attractive to generators and reduce the amount of coal moved by rail.

Present expectations are likely overstated given the sharp counter seasonal decline in natural gas prices, as generators are likely to need less coal than previously expected.

A mild start to the winter does not guarantee that it will stay that way, so the coal forecast is only little changed until a clearer picture of the full winter can be obtained.

A colder balance of the winter could further support natural gas prices and, by extension, coal demand.

Carload Outlook: Coal



### Traffic Group: Coal

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Coal</b>	<b>304.89</b>	<b>303.71</b>	<b>304.77</b>	<b>984.04</b>	<b>924.83</b>	<b>897.00</b>	<b>3,699.3</b>	<b>3,561.0</b>	<b>3,367.9</b>
<b>P/P % Change</b>	-3.6%	-0.4%	0.3%	5.3%	-6.0%	-3.0%			
<b>Y/Y % Change</b>	7.9%	0.2%	2.6%	15.5%	4.6%	4.8%	9.8%	-3.7%	-5.4%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



### Forest Products: Few changes to the outlook at end of year

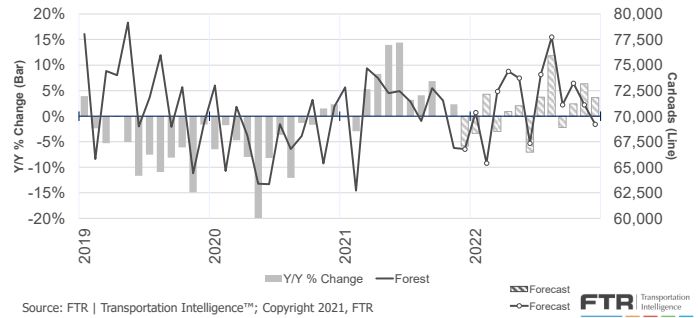
There were not many changes in the forest products sector this month as the overall slower growth trajectory remains in place.

A growth rate of 1.5% in 2022 is down by 0.1% compared with the expectation last month, though there is downside risk to the lumber and wood portion of forest products in the new year.

Housing is one of the key demand drivers for lumber and wood volumes, and residential construction could slow significantly next year in response to higher mortgage rates and higher average selling prices.

Pulp and paper has been unexpectedly weak to end 2021, and this could carry into the start of 2022.

Carload Outlook: Forest Products



#### Traffic Group: Forest Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Forest Products</b>	<b>66.89</b>	<b>66.78</b>	<b>70.37</b>	<b>213.71</b>	<b>205.20</b>	<b>208.22</b>	<b>847.6</b>	<b>860.3</b>	<b>874.6</b>
<b>P/P % Change</b>	-6.5%	-0.2%	5.4%	-2.2%	-4.0%	1.5%			
<b>Y/Y % Change</b>	2.3%	-5.8%	-3.4%	4.7%	-1.3%	-0.9%	3.9%	1.5%	1.7%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

### Metals & Products: Growth will turn negative next year

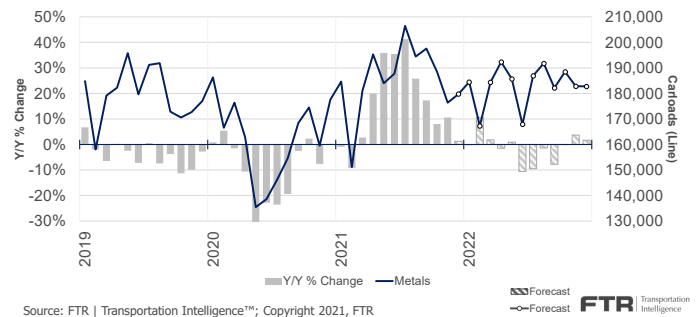
After a 2021 that showed strong growth supported by strong metal prices, 2022 will see that growth evaporate and turn slightly negative.

This year's metals and products volumes are expected to be 1.3% below 2021's levels, so absolute volumes will remain just below where they were last year.

Prices for metals are expected to decline slowly over the course of next year, and this could cause volumes to ease further as purchasers re-evaluate their needs.

Demand could also be supported by stronger automotive production that should be ramping up over the course of the year, and is one of the biggest users of fabricated metal products.

Carload Outlook: Metal Products



#### Traffic Group: Metals & Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Metals &amp; Products</b>	<b>176.39</b>	<b>179.78</b>	<b>184.49</b>	<b>598.53</b>	<b>544.70</b>	<b>536.13</b>	<b>2,227.2</b>	<b>2,197.1</b>	<b>2,218.7</b>
<b>P/P % Change</b>	-6.4%	1.9%	2.6%	5.6%	-9.0%	-1.6%			
<b>Y/Y % Change</b>	10.6%	1.2%	-0.1%	27.6%	6.5%	3.7%	14.4%	-1.4%	1.0%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



### Nonmetallic Minerals: Next year's expectations decline

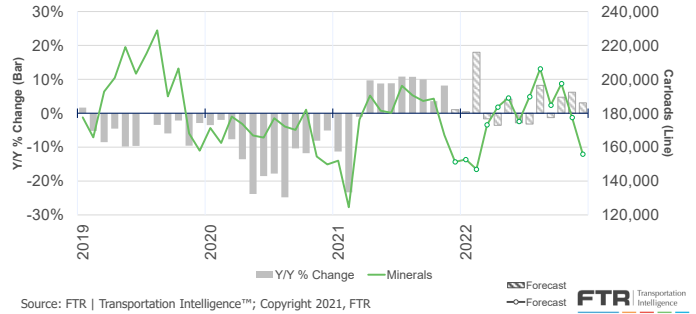
The expectation for volumes in this sector came down noticeably this month, as details of the recently passed infrastructure bill became better understood.

The bill does not allocate a significant amount of money above present levels and will have a muted effect on encouraging demand for construction and gravel materials.

This sector had been one of the expected beneficiaries of the bill's expanded spending, but that now appears significantly less likely to have a meaningful impact on loadings.

Overall non-metallic minerals traffic is expected to increase 2.2% in 2022 compared with 2021 levels.

Carload Outlook: Nonmetallic Minerals



#### Traffic Group: Nonmetallic Minerals

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Nonmetallic Minerals</b>	<b>167.09</b>	<b>151.31</b>	<b>152.68</b>	<b>573.96</b>	<b>506.97</b>	<b>472.89</b>	<b>2,085.7</b>	<b>2,132.6</b>	<b>2,215.6</b>
<b>P/P % Change</b>	-11.4%	-9.4%	0.9%	4.0%	-11.7%	-6.7%			
<b>Y/Y % Change</b>	8.2%	1.0%	0.4%	10.5%	4.2%	4.5%	3.1%	2.2%	3.9%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

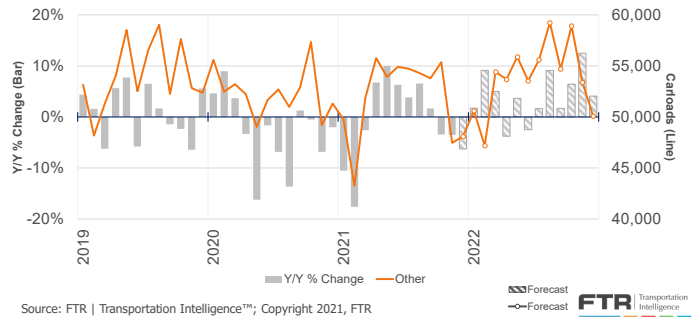
### Other Carloads: Small change to the outlook to end 2021

Other carloads are expected to be slightly stronger than previous forecasts, increasing just under 4% in 2022 compared with 2021. This is up from a forecast of just above 3% last month.

Waste and non-ferrous scrap volumes are expected to decline less than 1% next year, after a nearly 11% rise in 2021 compared against a pandemic-limited 2020 result.

All other carloads make up a small number of absolute carloads, meaning small changes have a large effect on growth rates. In 2022, volumes are expected to grow 6.3% compared with 2021. This year, volumes were just over 6% weaker compared with 2020.

Carload Outlook: All Other



#### Traffic Group: Other Carloads

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Other Carloads</b>	<b>47.47</b>	<b>48.10</b>	<b>50.60</b>	<b>162.82</b>	<b>150.93</b>	<b>152.22</b>	<b>623.2</b>	<b>647.3</b>	<b>659.4</b>
<b>P/P % Change</b>	-14.3%	1.3%	5.2%	-1.1%	-7.3%	0.9%			
<b>Y/Y % Change</b>	-3.5%	-6.3%	1.7%	4.0%	-4.4%	5.1%	-0.9%	3.9%	1.9%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**N.A. Rail Freight: Traffic Groups & Utilization**

*Not Seasonally Adjusted (000s of Loadings Originated)*

F = Forecast	MONTH							QUARTER				
	Sep-21	Oct-21	Nov-21	Dec-21F	Jan-22F	Feb-22F	Mar-22F	Q2'21	Q3'21	Q4'21F	Q1'22F	Q2'22F
<b>Total Carloads</b>	<b>1,443.07</b>	<b>1,466.65</b>	<b>1,387.91</b>	<b>1,372.56</b>	<b>1,403.88</b>	<b>1,310.79</b>	<b>1,461.55</b>	<b>4,347.59</b>	<b>4,325.14</b>	<b>4,227.12</b>	<b>4,176.21</b>	<b>4,278.05</b>
Railcar Utilization Rate (% SA) <sup>2</sup>	69.6%	73.8%	74.8%	75.2%	73.4%	73.4%	73.8%	74.4%	69.4%	74.6%	73.6%	75.7%
<b>Traffic Groups</b>												
Ag Products	238.82	274.58	258.00	255.95	268.98	245.42	274.71	791.46	688.15	788.53	789.10	782.16
Automotive	78.75	91.04	87.96	81.85	79.89	86.02	100.09	260.53	252.51	260.85	266.00	296.56
Chemicals	274.32	280.82	279.22	285.07	292.11	268.46	294.08	859.08	851.43	845.11	854.65	846.55
Coal	339.86	316.23	304.89	303.71	304.77	284.05	308.18	934.35	984.04	924.83	897.00	880.31
Forest Products	72.74	71.53	66.89	66.78	70.37	65.41	72.44	218.45	213.71	205.20	208.22	215.50
Metals	197.55	188.53	176.39	179.78	184.49	167.28	184.37	566.97	598.53	544.70	536.13	545.91
Nonmetallic Minerals	187.22	188.57	167.09	151.31	152.68	146.96	173.25	552.14	573.96	506.97	472.89	547.94
Other	53.79	55.36	47.47	48.10	50.60	47.19	54.43	164.60	162.82	150.93	152.22	163.11
MEMO: Economically Sensitive Freight	842.81	859.92	799.83	781.71	797.92	756.33	856.13	2,552.17	2,566.74	2,441.45	2,410.38	2,550.15
<b>Y/Y % Change <sup>1</sup></b>												
<b>Total Carloads</b>	<b>3.5%</b>	<b>-1.1%</b>	<b>2.1%</b>	<b>-4.9%</b>	<b>-3.3%</b>	<b>9.6%</b>	<b>-1.2%</b>	<b>19.0%</b>	<b>5.2%</b>	<b>-1.4%</b>	<b>1.2%</b>	<b>-1.6%</b>
<b>Traffic Groups</b>												
Ag Products	-11.3%	-10.7%	-8.5%	-11.7%	-7.6%	6.0%	-4.9%	4.8%	-12.7%	-10.3%	-2.8%	-1.2%
Automotive	-29.1%	-20.1%	-12.9%	-19.3%	-19.9%	-3.0%	-5.6%	111.1%	-21.8%	-17.5%	-9.7%	13.8%
Chemicals	3.4%	1.2%	5.5%	-4.9%	-4.0%	9.6%	1.4%	13.1%	6.8%	0.4%	1.8%	-1.5%
Coal	17.3%	5.9%	7.9%	0.2%	2.6%	14.1%	-0.6%	28.8%	15.5%	4.6%	4.8%	-5.8%
Forest Products	6.9%	-0.1%	2.3%	-5.8%	-3.4%	4.3%	-3.0%	12.1%	4.7%	-1.3%	-0.9%	-1.3%
Metals	17.3%	8.0%	10.6%	1.2%	-0.1%	10.6%	1.8%	29.8%	27.6%	6.5%	3.7%	-3.7%
Nonmetallic Minerals	10.0%	3.5%	8.2%	1.0%	0.4%	18.0%	-1.6%	9.1%	10.5%	4.2%	4.5%	-0.8%
Other	1.7%	-3.5%	-3.5%	-6.3%	1.7%	9.1%	5.0%	7.6%	4.0%	-4.4%	5.1%	-0.9%
MEMO: Economically Sensitive Freight	1.4%	-1.4%	2.7%	-4.9%	-4.0%	8.8%	0.2%	19.3%	5.1%	-1.3%	1.2%	-0.1%

**Annual Data (000,000s of Loadings Originated)**

F = Forecast	2020	2021F	2022F	2023F	2019	2020	2021F	2022F	2023F
<b>Total Carloads</b>	<b>16.310</b>	<b>17.026</b>	<b>17.260</b>	<b>17.567</b>	<b>-3.6%</b>	<b>-11.1%</b>	<b>4.4%</b>	<b>1.4%</b>	<b>1.8%</b>
Railcar Utilization Rate (% SA) <sup>2</sup>	63.4%	72.7%	75.3%	76.5%					
<b>Traffic Groups</b>									
Ag Products	3.139	3.080	3.224	3.425	-2.8%	4.8%	-1.9%	4.7%	6.2%
Automotive	1.075	1.068	1.210	1.303	-1.8%	-20.4%	-0.6%	13.3%	7.7%
Chemicals	3.312	3.395	3.428	3.502	2.9%	-7.7%	2.5%	1.0%	2.2%
Coal	3.369	3.699	3.561	3.368	-8.4%	-23.8%	9.8%	-3.7%	-5.4%
Forest Products	0.815	0.848	0.860	0.875	-5.9%	-5.6%	3.9%	1.5%	1.7%
Metals	1.947	2.227	2.197	2.219	-4.0%	-9.7%	14.4%	-1.4%	1.0%
Nonmetallic Minerals	2.024	2.086	2.133	2.216	-5.2%	-13.0%	3.1%	2.2%	3.9%
Other	0.629	0.623	0.647	0.659	0.8%	-3.0%	-0.9%	3.9%	1.9%
MEMO: Economically Sensitive Freight	9.560	9.942	10.177	10.479	-3.1%	-8.3%	4.0%	2.4%	3.0%

Notes:

Traffic Groups tie to AAR Weekly Rail Traffic definitions.

<sup>1</sup> - Y/Y % Change: Current period vs. year-ago period.

SA: Seasonally Adjusted

<sup>2</sup> - Utilization Rate: Railcars in use as a percentage of total railcar population.

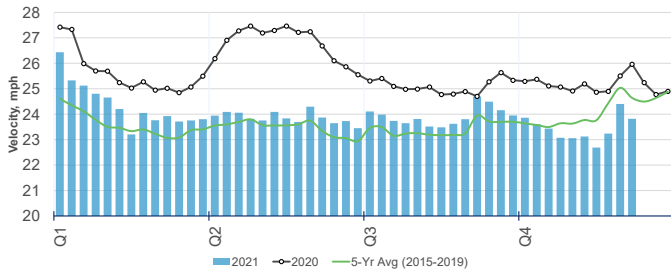
Source: FTR | Transportation Intelligence™; Copyright 2022, FTR



# Network Velocity

## Velocity: Total Rail

Weekly Reported Train Speed, Industry Average

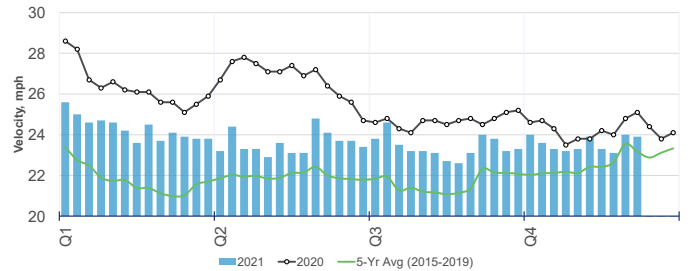


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: CSX

Weekly Reported Train Speed

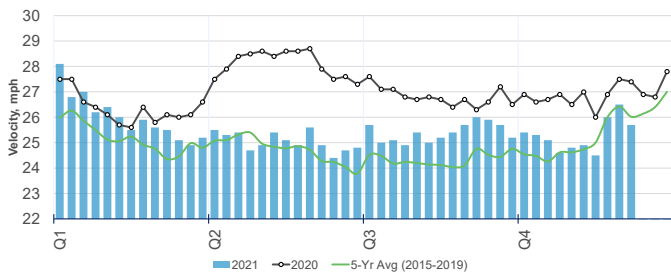


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: BNSF

Weekly Reported Train Speed

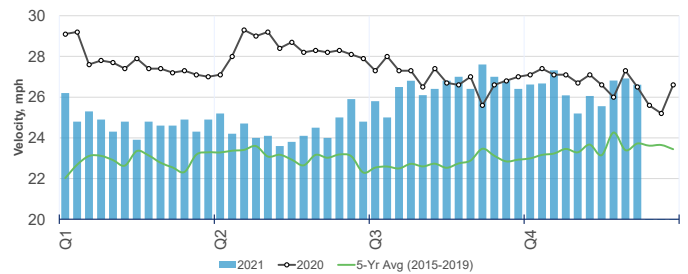


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: KCS

Weekly Reported Train Speed

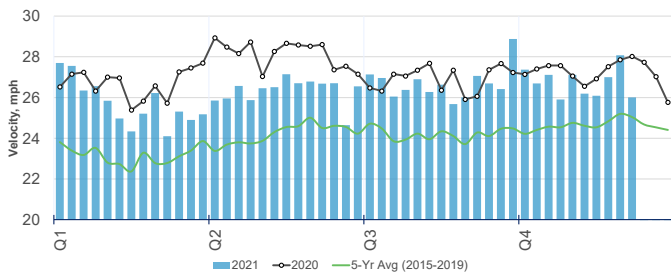


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: CN

Weekly Report Train Speed

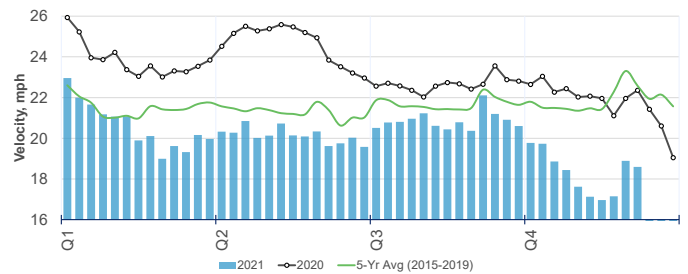


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: NS

Weekly Reported Train Speed

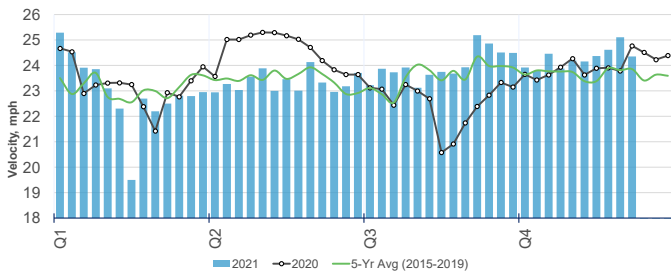


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: CP

Weekly Reported Train Speed

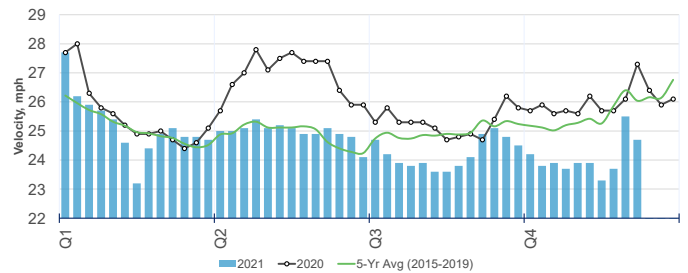


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



## Velocity: UP

Weekly Reported Train Speed



Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR

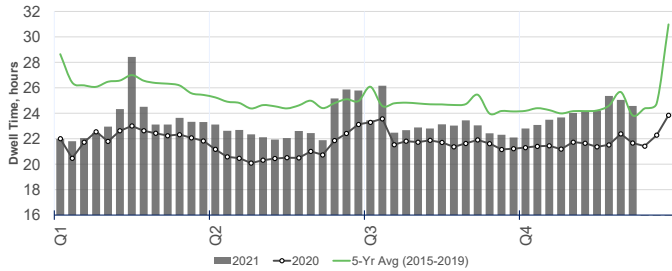




**Network Dwell Time**

**Dwell Time: Total Rail**

*Weekly Reported Terminal Dwell Time, Industry Average*

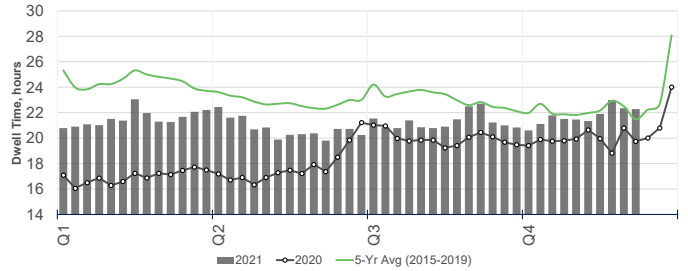


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: CSX**

*Weekly Reported Terminal Dwell Time*

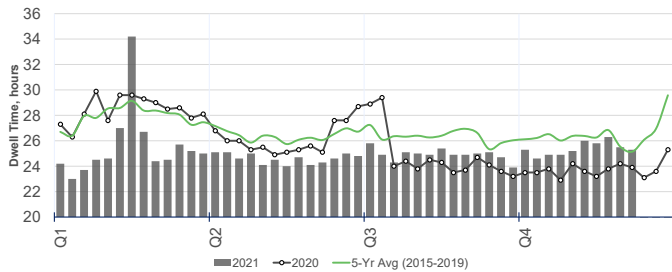


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: BNSF**

*Weekly Reported Terminal Dwell Time*

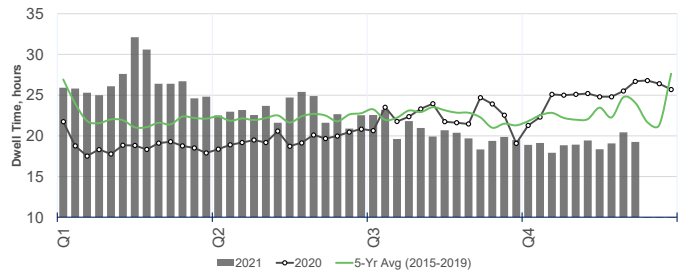


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: KCS**

*Weekly Reported Terminal Dwell Time*

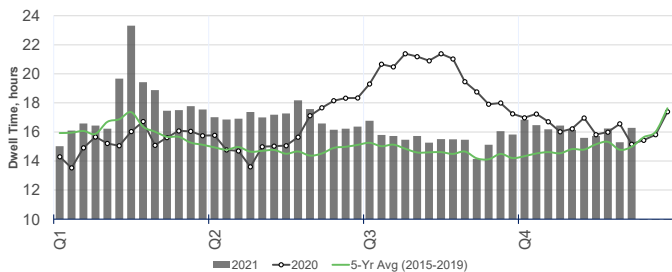


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: CN**

*Weekly Reported Terminal Dwell Time*

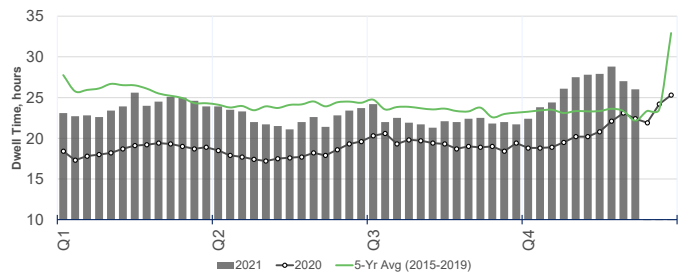


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: NS**

*Weekly Reported Terminal Dwell Time*

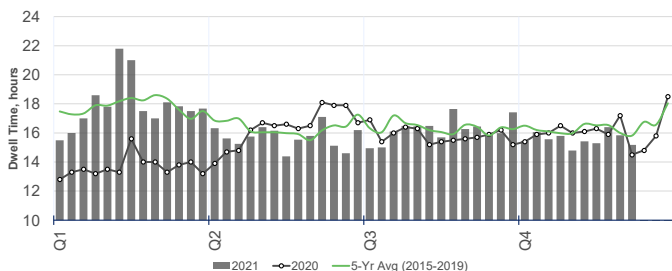


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: CP**

*Weekly Reported Terminal Dwell Time*

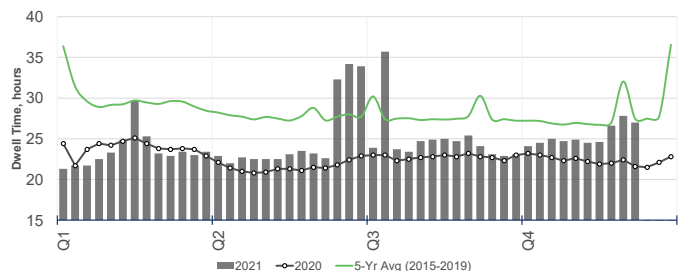


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Dwell Time: UP**

*Weekly Reported Terminal Dwell Time*



Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR

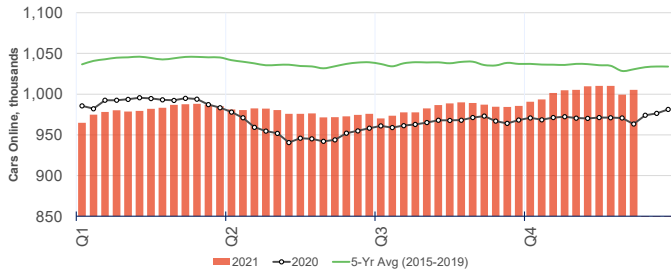




### Network Cars Online

#### Cars Online: Total Rail

Weekly Reported Cars Online, Industry Total

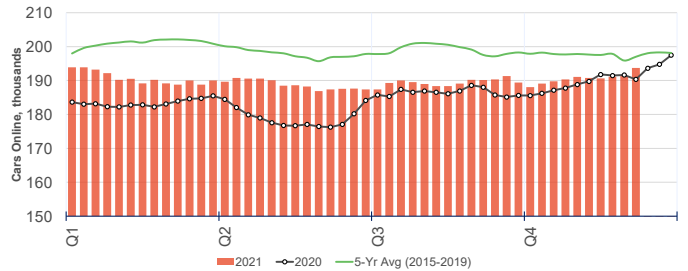


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: CSX

Weekly Reported Cars Online

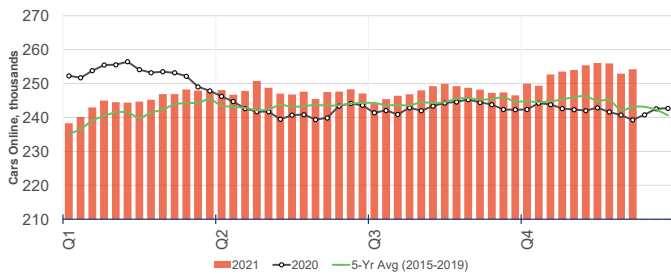


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: BNSF

Weekly Reported Cars Online

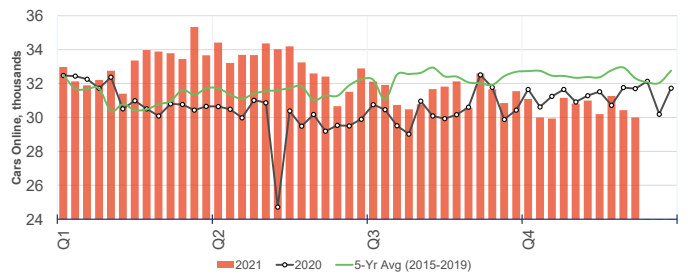


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: KCS

Weekly Reported Cars Online

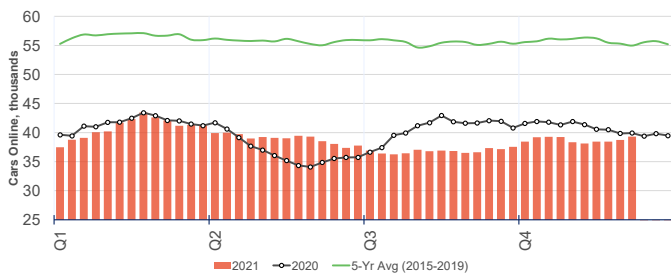


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: CN

Weekly Reported Cars Online

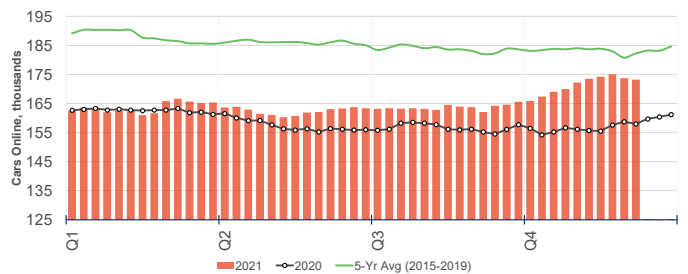


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: NS

Weekly Reported Cars Online

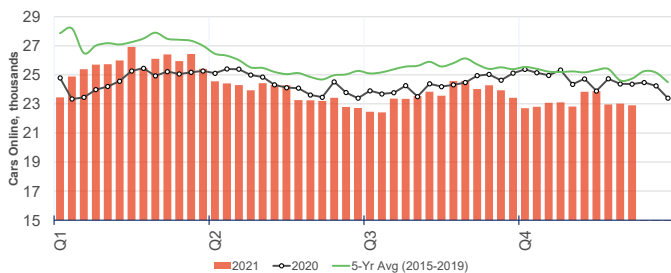


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: CP

Weekly Reported Cars Online

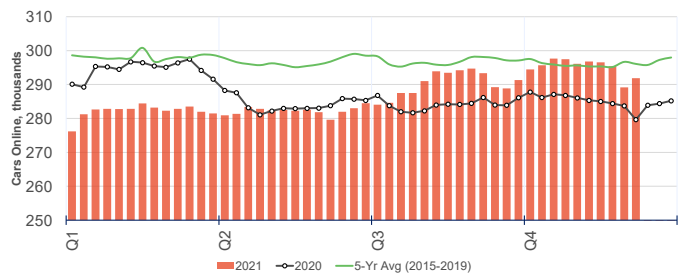


Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



#### Cars Online: UP

Weekly Reported Cars Online



Weekly Data. Source: STB, FTR | Transportation Intelligence™; Copyright 2021, FTR



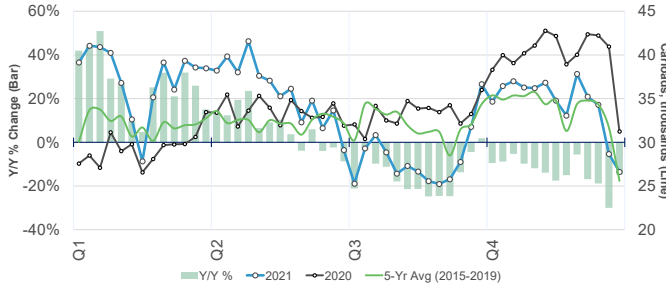




Agricultural Products

Weekly Carloads: Grain

North America

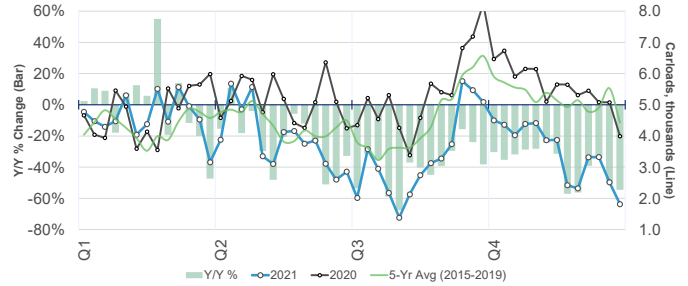


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Weekly Carloads: Farm Products

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Commodity: Grain									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Grain	150.40	149.28	158.69	373.02	456.87	461.09	1,775.2	1,900.6	2,043.7
Y/Y % Change	-11.7%	-14.7%	-9.1%	-15.4%	-13.0%	-3.5%	-0.4%	7.1%	7.5%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

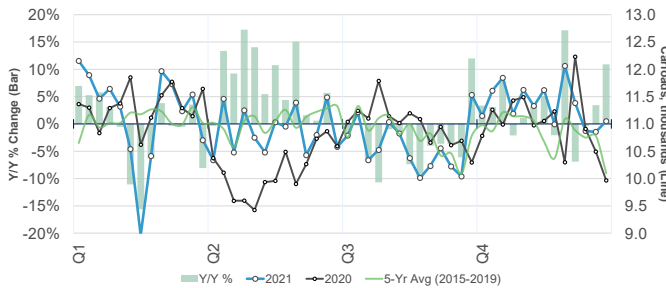
Commodity: Farm Products									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Farm Products	15.05	14.26	14.82	43.55	48.34	44.57	202.9	191.3	226.0
Y/Y % Change	-33.2%	-37.2%	-26.3%	-39.5%	-34.2%	-25.9%	-25.9%	-5.7%	18.1%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Weekly Carloads: Grain Mill Products

North America

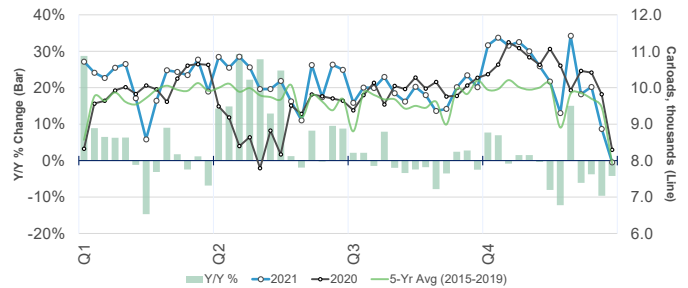


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Weekly Carloads: Food & Kindred Products

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Commodity: Grain Mill Products									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Grain Mill Products	48.60	49.28	50.69	140.28	147.72	148.20	572.2	586.5	602.6
Y/Y % Change	7.1%	0.8%	-0.7%	-2.9%	2.0%	3.3%	0.8%	2.5%	2.8%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Commodity: Food Products									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Food Products	43.95	43.13	44.77	131.31	135.59	135.24	529.3	545.3	552.6
Y/Y % Change	0.3%	-0.3%	-1.0%	0.1%	-0.4%	3.8%	2.9%	3.0%	1.3%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Traffic Group: Agricultural Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Ag Products</b>	<b>258.00</b>	<b>255.95</b>	<b>268.98</b>	<b>688.15</b>	<b>788.53</b>	<b>789.10</b>	<b>3,079.7</b>	<b>3,223.7</b>	<b>3,424.9</b>
P/P % Change	-6.0%	-0.8%	5.1%	-13.1%	14.6%	0.1%			
Y/Y % Change	-8.5%	-11.7%	-7.6%	-12.7%	-10.3%	-2.8%	-1.9%	4.7%	6.2%
Grain	-11.7%	-14.7%	-9.1%	-15.4%	-13.0%	-3.5%	-0.4%	7.1%	7.5%
Farm Products	-33.2%	-37.2%	-26.3%	-39.5%	-34.2%	-25.9%	-25.9%	-5.7%	18.1%
Grain Mill	7.1%	0.8%	-0.7%	-2.9%	2.0%	3.3%	0.8%	2.5%	2.8%
Food Products	0.3%	-0.3%	-1.0%	0.1%	-0.4%	3.8%	2.9%	3.0%	1.3%

F = Forecast

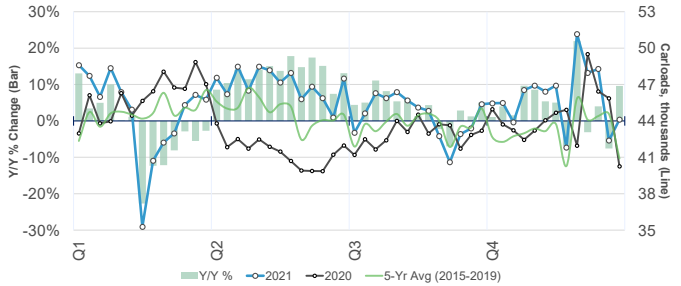
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**Chemicals**

**Weekly Carloads: Chemicals**

North America

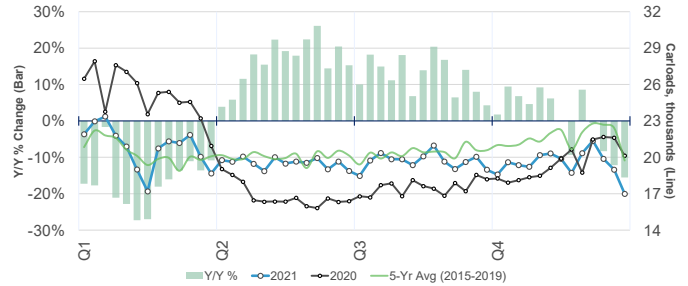


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Weekly Carloads: Petroleum Products**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Commodity: Chemicals**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Chemicals</b>	<b>195.03</b>	<b>196.49</b>	<b>200.29</b>	<b>590.36</b>	<b>588.87</b>	<b>595.11</b>	<b>2,357.3</b>	<b>2,392.8</b>	<b>2,428.5</b>
<b>Y/Y % Change</b>	<b>6.6%</b>	<b>-4.0%</b>	<b>-3.3%</b>	<b>4.3%</b>	<b>1.0%</b>	<b>4.1%</b>	<b>3.3%</b>	<b>1.5%</b>	<b>1.5%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Commodity: Petroleum and Petroleum Products**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Petroleum &amp; Products</b>	<b>84.19</b>	<b>88.58</b>	<b>91.81</b>	<b>261.07</b>	<b>256.24</b>	<b>259.54</b>	<b>1,037.7</b>	<b>1,034.9</b>	<b>1,073.8</b>
<b>Y/Y % Change</b>	<b>3.1%</b>	<b>-6.8%</b>	<b>-5.6%</b>	<b>13.0%</b>	<b>-1.0%</b>	<b>-3.1%</b>	<b>0.7%</b>	<b>-0.3%</b>	<b>3.8%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Chemicals**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Chemicals</b>	<b>279.22</b>	<b>285.07</b>	<b>292.11</b>	<b>851.43</b>	<b>845.11</b>	<b>854.65</b>	<b>3,395.0</b>	<b>3,427.8</b>	<b>3,502.3</b>
<b>P/P % Change</b>	<b>-0.6%</b>	<b>2.1%</b>	<b>2.5%</b>	<b>-0.9%</b>	<b>-0.7%</b>	<b>1.1%</b>			
<b>Y/Y % Change</b>	<b>5.5%</b>	<b>-4.9%</b>	<b>-4.0%</b>	<b>6.8%</b>	<b>0.4%</b>	<b>1.8%</b>	<b>2.5%</b>	<b>1.0%</b>	<b>2.2%</b>
<b>Chemicals</b>	<b>6.6%</b>	<b>-4.0%</b>	<b>-3.3%</b>	<b>4.3%</b>	<b>1.0%</b>	<b>4.1%</b>	<b>3.3%</b>	<b>1.5%</b>	<b>1.5%</b>
<b>Petroleum &amp; Products</b>	<b>3.1%</b>	<b>-6.8%</b>	<b>-5.6%</b>	<b>13.0%</b>	<b>-1.0%</b>	<b>-3.1%</b>	<b>0.7%</b>	<b>-0.3%</b>	<b>3.8%</b>

F = Forecast

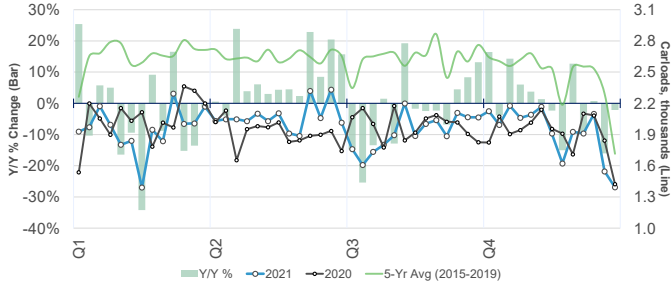
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



Forest Products

Weekly Carloads: Primary Forest Products

North America

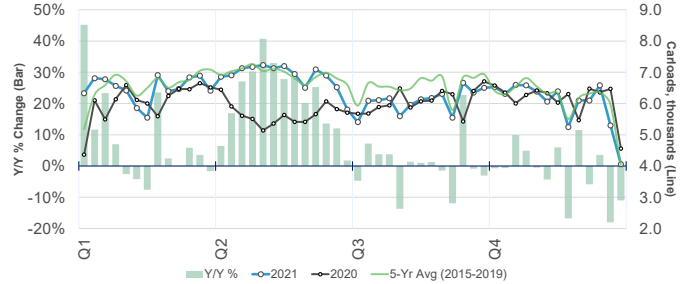


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Weekly Carloads: Lumber & Wood

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Commodity: Primary Forest Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Primary Forest Products	8.26	8.14	8.75	25.58	25.48	26.11	102.7	108.2	107.0
Y/Y % Change	2.9%	-0.1%	1.4%	-1.8%	1.8%	5.5%	0.0%	5.4%	-1.1%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Commodity: Lumber & Wood Products

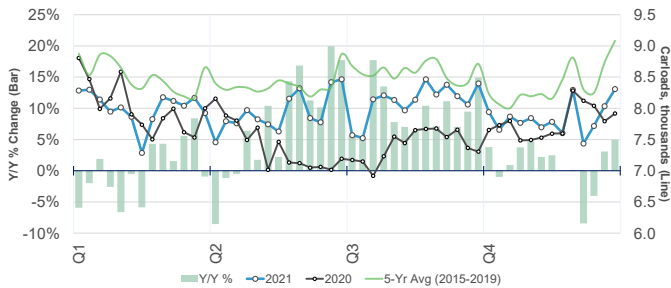
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Lumber & Wood Products	25.60	24.52	26.39	80.39	78.42	81.03	330.7	332.4	337.4
Y/Y % Change	1.9%	-7.0%	-7.2%	0.1%	-1.8%	-2.0%	5.7%	0.5%	1.5%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Weekly Carloads: Pulp & Paper Products

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Commodity: Pulp & Paper Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
Pulp & Paper Products	33.03	34.12	35.23	107.74	101.30	101.08	414.2	419.6	430.2
Y/Y % Change	2.5%	-6.3%	-1.5%	10.3%	-1.7%	-1.7%	3.6%	1.3%	2.5%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

Traffic Group: Forest Products

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Forest Products</b>	<b>66.89</b>	<b>66.78</b>	<b>70.37</b>	<b>213.71</b>	<b>205.20</b>	<b>208.22</b>	<b>847.6</b>	<b>860.3</b>	<b>874.6</b>
P/P % Change	-6.5%	-0.2%	5.4%	-2.2%	-4.0%	1.5%			
Y/Y % Change	2.3%	-5.8%	-3.4%	4.7%	-1.3%	-0.9%	3.9%	1.5%	1.7%
Primary Forest Products	2.9%	-0.1%	1.4%	-1.8%	1.8%	5.5%	0.0%	5.4%	-1.1%
Lumber & Wood Products	1.9%	-7.0%	-7.2%	0.1%	-1.8%	-2.0%	5.7%	0.5%	1.5%
Pulp & Paper Products	2.5%	-6.3%	-1.5%	10.3%	-1.7%	-1.7%	3.6%	1.3%	2.5%

F = Forecast

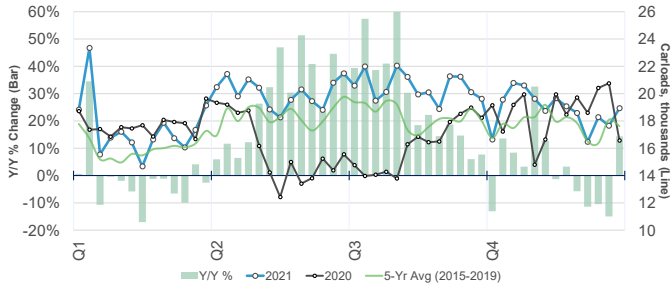
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**Metals & Products**

**Weekly Carloads: Metallic Ores**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



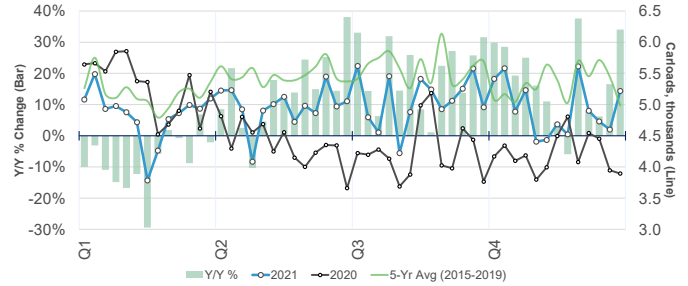
Commodity: Metallic Ores									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Metallic Ores</b>	<b>81.70</b>	<b>82.33</b>	<b>81.05</b>	<b>273.02</b>	<b>248.49</b>	<b>233.36</b>	<b>1,002.5</b>	<b>989.8</b>	<b>1,011.2</b>
<b>Y/Y % Change</b>	5.3%	-4.6%	-0.3%	26.9%	1.6%	4.6%	12.2%	-1.3%	2.2%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Weekly Carloads: Coke**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



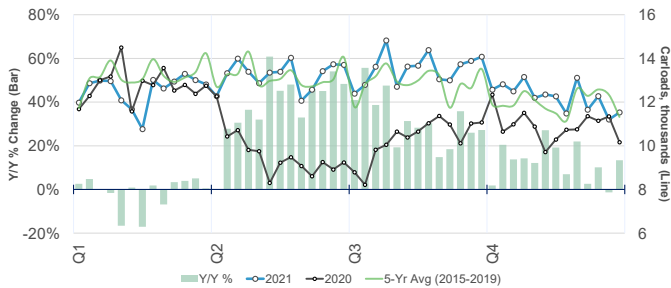
Commodity: Coke									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Coke</b>	<b>19.51</b>	<b>20.76</b>	<b>20.83</b>	<b>67.38</b>	<b>63.10</b>	<b>60.05</b>	<b>256.4</b>	<b>248.1</b>	<b>251.5</b>
<b>Y/Y % Change</b>	8.0%	8.2%	-6.0%	20.2%	13.1%	-2.6%	8.4%	-3.2%	1.4%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Weekly Carloads: Primary Metal Products**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



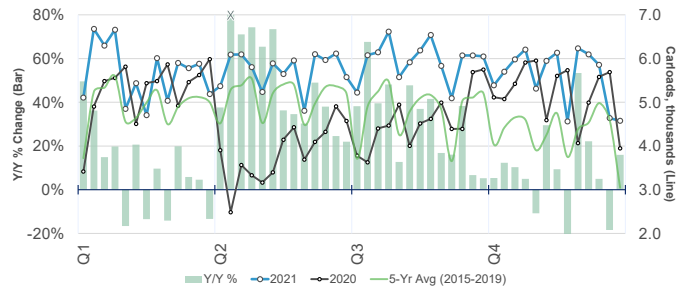
Commodity: Primary Metal Products									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Primary Metal Products</b>	<b>51.61</b>	<b>53.68</b>	<b>56.10</b>	<b>179.35</b>	<b>161.17</b>	<b>166.29</b>	<b>671.4</b>	<b>659.7</b>	<b>667.5</b>
<b>Y/Y % Change</b>	19.5%	7.5%	2.1%	30.7%	12.4%	3.8%	17.8%	-1.7%	1.2%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Weekly Carloads: Iron & Steel Scrap**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



Commodity: Iron & Steel Scrap									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Iron &amp; Steel Scrap</b>	<b>23.57</b>	<b>23.00</b>	<b>26.52</b>	<b>78.78</b>	<b>71.93</b>	<b>76.44</b>	<b>297.0</b>	<b>299.4</b>	<b>288.5</b>
<b>Y/Y % Change</b>	13.6%	3.8%	1.1%	29.5%	6.0%	5.9%	20.2%	0.8%	-3.6%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Metals & Products**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Metals &amp; Products</b>	<b>176.39</b>	<b>179.78</b>	<b>184.49</b>	<b>598.53</b>	<b>544.70</b>	<b>536.13</b>	<b>2,227.2</b>	<b>2,197.1</b>	<b>2,218.7</b>
<b>P/P % Change</b>	-6.4%	1.9%	2.6%	5.6%	-9.0%	-1.6%			
<b>Y/Y % Change</b>	10.6%	1.2%	-0.1%	27.6%	6.5%	3.7%	14.4%	-1.4%	1.0%
<b>Metallic Ores</b>	5.3%	-4.6%	-0.3%	26.9%	1.6%	4.6%	12.2%	-1.3%	2.2%
<b>Coke</b>	8.0%	8.2%	-6.0%	20.2%	13.1%	-2.6%	8.4%	-3.2%	1.4%
<b>Primary Metal Products</b>	19.5%	7.5%	2.1%	30.7%	12.4%	3.8%	17.8%	-1.7%	1.2%
<b>Iron &amp; Steel Scrap</b>	13.6%	3.8%	1.1%	29.5%	6.0%	5.9%	20.2%	0.8%	-3.6%

F = Forecast

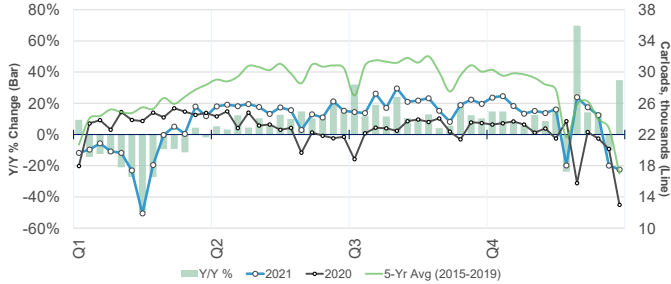
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**Nonmetallic Minerals & Products**

**Weekly Carloads: Stone, Sand, Gravel**

North America

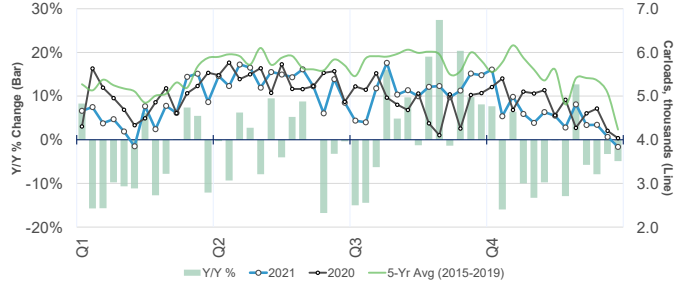


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Weekly Carloads: Nonmetallic Minerals**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Commodity: Crushed Stone**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Crushed Stone</b>	<b>99.85</b>	<b>87.86</b>	<b>87.76</b>	<b>342.85</b>	<b>300.74</b>	<b>274.26</b>	<b>1,224.9</b>	<b>1,255.3</b>	<b>1,305.5</b>
<b>Y/Y % Change</b>	14.6%	4.8%	1.9%	14.1%	9.2%	6.7%	3.8%	2.5%	4.0%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Commodity: Nonmetallic Minerals**

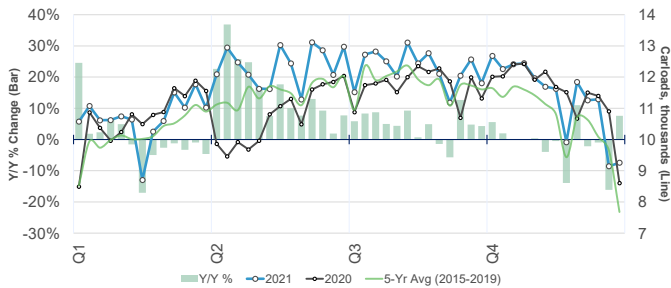
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Nonmetallic Minerals</b>	<b>19.08</b>	<b>18.68</b>	<b>19.14</b>	<b>67.62</b>	<b>59.36</b>	<b>56.55</b>	<b>255.5</b>	<b>253.3</b>	<b>277.0</b>
<b>Y/Y % Change</b>	-2.5%	-4.8%	-3.1%	5.5%	-4.4%	-4.8%	-1.9%	-0.8%	9.3%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Weekly Carloads: Stone, Clay, Glass**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Commodity: Stone, Clay & Glass Products**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Stone, Clay &amp; Glass Products</b>	<b>48.16</b>	<b>44.76</b>	<b>45.78</b>	<b>163.50</b>	<b>146.87</b>	<b>142.08</b>	<b>605.4</b>	<b>624.1</b>	<b>633.2</b>
<b>Y/Y % Change</b>	0.8%	-3.5%	-0.7%	5.6%	-1.4%	4.2%	3.8%	3.1%	1.5%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Nonmetallic Minerals**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Nonmetallic Minerals</b>	<b>167.09</b>	<b>151.31</b>	<b>152.68</b>	<b>573.96</b>	<b>506.97</b>	<b>472.89</b>	<b>2,085.7</b>	<b>2,132.6</b>	<b>2,215.6</b>
<b>P/P % Change</b>	-11.4%	-9.4%	0.9%	4.0%	-11.7%	-6.7%			
<b>Y/Y % Change</b>	8.2%	1.0%	0.4%	10.5%	4.2%	4.5%	3.1%	2.2%	3.9%
<b>Crushed Stone</b>	14.6%	4.8%	1.9%	14.1%	9.2%	6.7%	3.8%	2.5%	4.0%
<b>Non-Metallic Minerals</b>	-2.5%	-4.8%	-3.1%	5.5%	-4.4%	-4.8%	-1.9%	-0.8%	9.3%
<b>Stone, Clay &amp; Glass Products</b>	0.8%	-3.5%	-0.7%	5.6%	-1.4%	4.2%	3.8%	3.1%	1.5%

F = Forecast

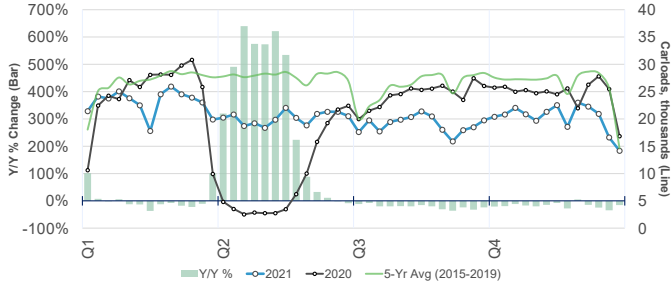
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**Automotive & Coal**

**Weekly Carloads: Motor Vehicles & Parts**

North America

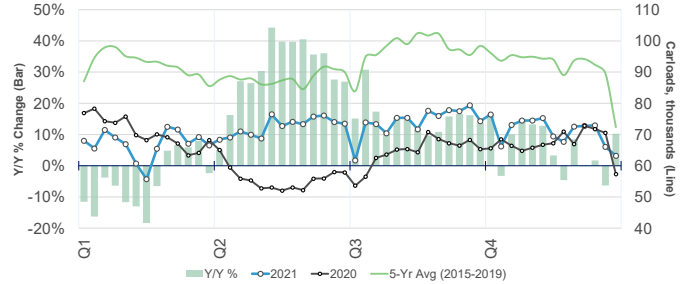


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Weekly Carloads: Coal**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Commodity: Autos and Parts**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Autos and Parts</b>	<b>87.96</b>	<b>81.85</b>	<b>79.89</b>	<b>252.51</b>	<b>260.85</b>	<b>266.00</b>	<b>1,068.3</b>	<b>1,210.2</b>	<b>1,303.0</b>
<b>Y/Y % Change</b>	<b>-12.9%</b>	<b>-19.3%</b>	<b>-19.9%</b>	<b>-21.8%</b>	<b>-17.5%</b>	<b>-9.7%</b>	<b>-0.6%</b>	<b>13.3%</b>	<b>7.7%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Commodity: Coal**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Coal</b>	<b>304.89</b>	<b>303.71</b>	<b>304.77</b>	<b>984.04</b>	<b>924.83</b>	<b>897.00</b>	<b>3,699.3</b>	<b>3,561.0</b>	<b>3,367.9</b>
<b>Y/Y % Change</b>	<b>7.9%</b>	<b>0.2%</b>	<b>2.6%</b>	<b>15.5%</b>	<b>4.6%</b>	<b>4.8%</b>	<b>9.8%</b>	<b>-3.7%</b>	<b>-5.4%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Automotive**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Automotive</b>	<b>87.96</b>	<b>81.85</b>	<b>79.89</b>	<b>252.51</b>	<b>260.85</b>	<b>266.00</b>	<b>1,068.3</b>	<b>1,210.2</b>	<b>1,303.0</b>
<b>P/P % Change</b>	<b>-3.4%</b>	<b>-6.9%</b>	<b>-2.4%</b>	<b>-3.1%</b>	<b>3.3%</b>	<b>2.0%</b>			
<b>Y/Y % Change</b>	<b>-12.9%</b>	<b>-19.3%</b>	<b>-19.9%</b>	<b>-21.8%</b>	<b>-17.5%</b>	<b>-9.7%</b>	<b>-0.6%</b>	<b>13.3%</b>	<b>7.7%</b>
<b>Autos and Parts</b>	<b>-12.9%</b>	<b>-19.3%</b>	<b>-19.9%</b>	<b>-21.8%</b>	<b>-17.5%</b>	<b>-9.7%</b>	<b>-0.6%</b>	<b>13.3%</b>	<b>7.7%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Coal**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total Coal</b>	<b>304.89</b>	<b>303.71</b>	<b>304.77</b>	<b>984.04</b>	<b>924.83</b>	<b>897.00</b>	<b>3,699.3</b>	<b>3,561.0</b>	<b>3,367.9</b>
<b>P/P % Change</b>	<b>-3.6%</b>	<b>-0.4%</b>	<b>0.3%</b>	<b>5.3%</b>	<b>-6.0%</b>	<b>-3.0%</b>			
<b>Y/Y % Change</b>	<b>7.9%</b>	<b>0.2%</b>	<b>2.6%</b>	<b>15.5%</b>	<b>4.6%</b>	<b>4.8%</b>	<b>9.8%</b>	<b>-3.7%</b>	<b>-5.4%</b>
<b>Coal</b>	<b>7.9%</b>	<b>0.2%</b>	<b>2.6%</b>	<b>15.5%</b>	<b>4.6%</b>	<b>4.8%</b>	<b>9.8%</b>	<b>-3.7%</b>	<b>-5.4%</b>

F = Forecast

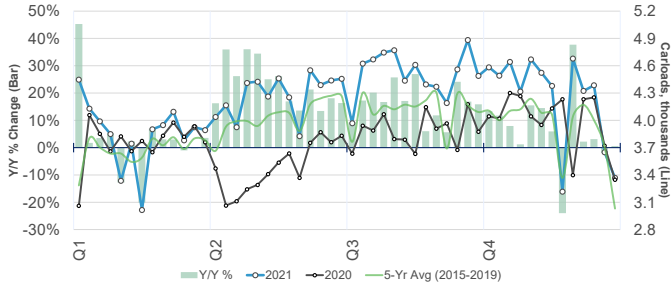
Source: FTR | Transportation Intelligence™; Copyright 2021, FTR



**Other Carloads**

**Weekly Carloads: Waste & Other Scrap**

North America

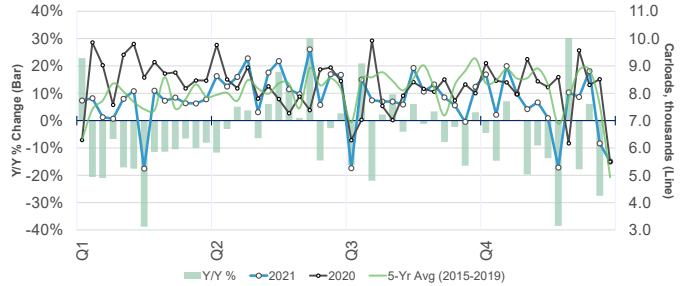


Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



**Weekly Carloads: All Other**

North America



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR



<b>Commodity: Waste &amp; Non-Ferrous Scrap</b>									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Waste &amp; Non-Ferrous Scrap</b>	<b>17.96</b>	<b>17.11</b>	<b>16.50</b>	<b>59.92</b>	<b>54.68</b>	<b>48.97</b>	<b>218.8</b>	<b>217.3</b>	<b>220.1</b>
Y/Y % Change	9.9%	-1.0%	-6.7%	16.9%	4.5%	-0.5%	10.6%	-0.7%	1.3%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

<b>Commodity: All Other Carloads</b>									
000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>All Other Carloads</b>	<b>29.51</b>	<b>30.99</b>	<b>34.10</b>	<b>102.90</b>	<b>96.24</b>	<b>103.25</b>	<b>404.4</b>	<b>430.0</b>	<b>439.3</b>
Y/Y % Change	-10.2%	-8.9%	6.4%	-2.3%	-8.8%	8.0%	-6.1%	6.3%	2.2%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Traffic Group: Other Carloads**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Other Carloads</b>	<b>47.47</b>	<b>48.10</b>	<b>50.60</b>	<b>162.82</b>	<b>150.93</b>	<b>152.22</b>	<b>623.2</b>	<b>647.3</b>	<b>659.4</b>
P/P % Change	-14.3%	1.3%	5.2%	-1.1%	-7.3%	0.9%			
Y/Y % Change	-3.5%	-6.3%	1.7%	4.0%	-4.4%	5.1%	-0.9%	3.9%	1.9%
<b>Waste &amp; Non-Ferrous Scrap</b>	<b>9.9%</b>	<b>-1.0%</b>	<b>-6.7%</b>	<b>16.9%</b>	<b>4.5%</b>	<b>-0.5%</b>	<b>10.6%</b>	<b>-0.7%</b>	<b>1.3%</b>
<b>All Other Carloads</b>	<b>-10.2%</b>	<b>-8.9%</b>	<b>6.4%</b>	<b>-2.3%</b>	<b>-8.8%</b>	<b>8.0%</b>	<b>-6.1%</b>	<b>6.3%</b>	<b>2.2%</b>

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2021, FTR

**Economically Sensitive Freight: Carloads Overview**

000s of Carloads	Nov-21	Dec-21F	Jan-22F	Q3'21	Q4'21F	Q1'22F	2021F	2022F	2023F
<b>Total ESF Carloads</b>	<b>799.83</b>	<b>781.71</b>	<b>797.92</b>	<b>2,566.7</b>	<b>2,441.5</b>	<b>2,410.4</b>	<b>9,941.6</b>	<b>10,176.9</b>	<b>10,478.6</b>
P/P % Change	-7.0%	-2.3%	2.1%	0.6%	-4.9%	-1.3%			
Y/Y % Change	2.7%	-4.9%	-4.0%	5.1%	-1.3%	1.2%	4.0%	2.4%	3.0%

F = Forecast

Source: FTR | Transportation Intelligence™; Copyright 2022, FTR



# Carload faced an interesting 2021 with modest growth *Growth will slow further this year*

Carload volume growth posted a modest gain in 2021 compared to 2020's pandemic-reduced results, but that growth is expected to slow further. Service issues and congestion did not help carriers' quest to attract more carloads to manifest service.

### Promises delayed

This year was supposed to be the year that railroads showed shippers the fruits of the Precision Scheduled Railroading principles the industry implemented over the last few years. Carriers would supposedly be able to maintain service levels while growing volumes and keeping headcount low to cap costs. Unfortunately, for the rail industry and the shippers that rely on it, service never truly recovered from weather-related disruptions that occurred in February, and service languished near five-year average levels for much of the year. The effects were not evenly distributed among carriers and some shippers have experienced dramatically worse effects than others based on where they are located.

Carriers have slimmed their engineer and conductor ranks dramatically over the past two years, and this appears to be one of the major constraining factors to carriers not being able to quickly improve service. It takes six to nine months for a new hire to successfully complete the federal training and certification requirements to be able to productively operate a locomotive on the North American rail system. The present issues are likely to linger into early 2022 and hold back volume growth. Shippers have a long memory, and the service woes that seem to occur every few years will help push carload growth rates weaker and into a consistent growth trajectory that is less than GDP.

### Economically sensitive freight bears watching

In 2021 economically sensitive freight consistently underperformed the overall carload market, and this should raise concerns into the new year. Economically-sensitive freight excludes coal, agriculture, and petroleum, focusing attention on those commodity sectors like lumber and wood and metals that are more closely tied to the underlying

economy. The category's underperformance underscores that shippers with choice in these sectors chose truck in 2021 over rail, even though truck capacity was tight and rates were high.

Carriers have tried to attract this business with various initiatives over the last decade with minimal success. One of the major stumbling blocks has been the lack of consistent, reliable service that shippers can build their supply chains around. If the economically sensitive freight category continues to struggle into next year, it will show shipper confidence in rail has significantly eroded.

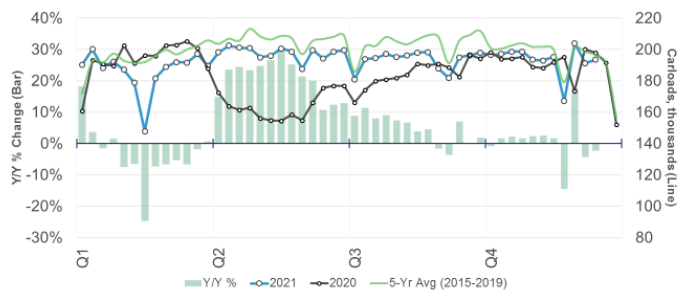
### Regulators leaned forward in 2021

The Surface Transportation Board took on an enhanced role in 2021 that is unlikely to change any time soon. The calendar page flipping to 2022 only showcases the foundation the agency laid this past year, with several public hearings already on the docket for the first quarter.

The board is keenly interested in service issues along with ensuring that small, carload shippers are represented and able to access its regulatory remedies. This has the potential to introduce new regulatory remedies including final offer arbitration and more small rate case review options that could be onerous to carriers.

In many ways, 2022 will be a continuation of many of the trends that took shape in the second half of 2021, with rail service and slowing carload growth in focus. The regulators are here to stay as well which has implications for carriers and shippers alike.

Weekly Carloads: Economically Sensitive Freight  
*Specialty Group, North America*



Weekly Data. Source: AAR, FTR | Transportation Intelligence™; Copyright 2021, FTR







## General Terms

### Annualized rate

A rate of return for a given period that is less than 1 year, but it is computed as if the rate were for a full year.

### Average Length-of-Haul

Total tonmiles divided by total tons.

### Basis Points

A unit that is equal to 1/100 of 1%. If something increased from 2.2% to 2.8%, it increased 60 basis points.

### Economically Sensitive Freight

A category of rail carload traffic that excludes Coal, Petroleum & Petroleum Products, Grain, and Grain Mill Products.

### Goods Transportation Sector

Components of GDP that are critical in demand for goods and thereby induce demand for transportation services.

### M/M

Month over month. The difference in percentage or units when compared to the previous month.

### New Truck Lead Time

The Backlog of Class 8 truck orders divided by the Build for a given month. Gives an indication of the average length of time in months for a fleet to take delivery of a new truck order.

### Rail Carloads

Rail carloads is the seasonally adjusted number of carloadings originated in the United States plus loads that come to U.S. destinations from Mexico and Canada. Data in this report excludes intermodal loadings.

### Rail Shippers Conditions Index (RCI)

A measure of market conditions that influence the rail shippers freight transport environment. This index tracks the changes representing five major conditions in the U.S. carload freight market. The conditions are: freight demand, freight rates, fleet capacity, carload service, and fuel price. The individual metrics are combined into a single index that tracks the conditions that influence the rail shippers freight transport environment. A positive score represents good, optimistic conditions; a negative score represents bad, pessimistic conditions.

### Railcar Utilization Rate

This metric calculates the percentage of the total population of railcars that is required to move the N.A. rail freight. In general, a figure above 90% indicates a tight market where the majority of the railcar population is at work. A figure below 80% indicates a weak market where a significant portion of the population is idle or underutilized.

### SAAR

Seasonally Adjusted Annualized Rate

### Shippers Conditions Index (SCI)

This index tracks the changes representing four major conditions in the U.S. full-load freight market. The major conditions are: freight demand, freight rates, fleet capacity, and fuel price. The individual metrics are combined into a single index that tracks the market conditions that influence the shippers freight transport environment. A positive score represents good, optimistic conditions; a negative score represents bad, pessimistic conditions.

### STCC

Standard Transportation Commodity Code (Similar to the SIC/NAICS Codes with a few added categories designed for transportation movements)

### TEU

Twenty Foot Equivalent Unit. Used for reported port container statistics.

### Ton

Tonnage. Ton Originated by specific mode (i.e. one ton of coal shipped by rail and then by water would be shown as two tons of coal). This is Domestic Traffic Only. Export movements are included only as far as the border or to a port in which it will be directly exported. The same is true for Imports. An import is counted once it reaches the border or a port.

### Tonmile

One ton moved one mile = one tonmile.

### Truck Driver Pressure Index

The index tracks carriers' need for additional drivers based on trends in the business cycle, demographics, and regulations. Business cycles create natural shortages (and surpluses) that stem from typical economic activity. Demographic changes in any given year are small and only add up after a significant time span. Regulations vary across the industry and are difficult to predict due to changing priorities and uncertain response.

The index baseline is zero, representing balance in the driver hiring environment. Positive readings suggest greater pressure on rates and utilization; negative readings suggest less pressure.

### Truck Loadings

Truck loadings is the estimated number of truck loads originated in the United States plus truck loads that come to U.S. destinations from Mexico and Canada. It is tons divided by the average tons per load.

### Truck Utilization Rate - "Active"

This metric calculates the percentage of the population of active trucks that is required to move the U.S. truck freight. In general, a figure above 95% indicates a tight market where the majority of the truck population is at work. A figure below 90% indicates a weak market where a significant portion of the truck population is idle.

### Truck Utilization Rate - "Total"

This metric calculates the percentage of the total population of trucks that is required to move U.S. truck freight. In general, a figure above 90% indicates a tight market, a figure below 85% indicates a weak market.

### Trucking Conditions Index (TCI)

This index tracks the changes representing four major conditions in the U.S. full-load truck market. The major conditions are: freight demand, freight rates, fleet capacity, and fuel price. The individual metrics are combined into a single index that tracks the market conditions that influence fleet behavior. A positive score represents good, optimistic conditions; a negative score represents bad, pessimistic conditions.

### Y/Y

Year over year. The difference in percentage or units when compared to the same month, quarter, or time period of the previous year.



## Trailer Types

### Dry Van

An enclosed, rectangular, box trailer that carries general freight.

### Refrigerated (Reefer) Van

A refrigerated and insulated van used to transport temperature-sensitive freight.

### Flatbed (Platform)

A flat surfaced, open, trailer with no enclosure or doors.

### Specialized (Specialty)

There is a wide assortment of specialized trailers that are highly engineered for specific purposes (i.e. auto hauler, livestock, lowbed, oversized, etc.)

### Tank (Tanker)

A trailer with an enclosed, sealed, cylinder-shaped tank used to carry liquid or dry bulk freight.

### Bulk/Dump

This is a combined group of Dump trailers and Straight Trucks. A Dump trailer has an open-top box (bucket) used for hauling dirt, rocks or gravel. Discharge can be from end, bottom, or side. Straight Trucks have the trailing equipment permanently mounted to the chassis. The largest segment are Dump Trucks that haul stone and aggregates.

## Railcar Types

### Box Cars

An enclosed car which has doors. It is used for general service and for lading which must be protected from the weather.

### Covered Hoppers

A hopper car with a permanent roof and bottom openings for unloading. Used for carrying cement, grain, or other bulk commodities.

### Flat Cars

An open car without sides, ends or top, used principally for hauling lumber, stone, heavy machinery, TOFC/COFC equipment, etc.

### Gondolas

A car without a top covering which has straight sides and ends, the floor or bottom of which is approximately level. Used for bulk freight.

### Open-Top Hoppers

Cars having sides and ends but no roof with a sloping floor which will discharge its load by gravity through the hopper doors.

### Tank Cars

A car which consists of a tank for carrying liquids such as oil, molasses, vinegar, acids, compressed gasses and granular solids.

## Freight Rates

### Dry Van

Revenue per Loaded Mile. Spot/contract rates for Dry Van activity both with and w/o Fuel Surcharge (FSC).

Indexed to 1Q2008.

### Refrigerated (Reefer) Van

Temperature-Controlled (TC). Revenue per Loaded Mile. Spot/contract rates for Refrigerated activity both with and w/o Fuel Surcharge (FSC).

Indexed to 1Q2008.

### Flatbed (Platform)

Revenue per Loaded Mile. Spot/contract rates for Flatbed activity both with and w/o Fuel Surcharge (FSC).

Indexed to 1Q2008.

### Specialized

Revenue per Loaded Mile. Spot/contract rates for Specialized equipment both with and w/o Fuel Surcharge (FSC).

Indexed to 1Q2008. Note: Includes numerous types of trailer freight, but generally excludes tank trailers.

### Less-Than-Truckload (LTL)

Revenue per hundredweight. Contract rates for LTL moves. These are parcel, pallet, or less than full truckload moves by LTL carriers.

Indexed to 1Q2008.

### Intermodal

Revenue per Load. An estimate of pricing trajectory that is calculated based on the underlying cost pressures from dry van truckload and rail line-haul. Shown both with fuel surcharges (FSC) included and net of FSC.

Indexed to 1Q2008.

### Rail Carload

An estimate of U.S. Class I rail pricing power that is calculated from data reported to the STB. It measures revenue per tonmile and is shown both with fuel surcharges (FSC) included and net of FSC. It is impacted by both actual railroad rates and by changes in the mix of commodities moved.

Indexed to 1Q2008.



**AAR Carload Commodity Definitions**

**Chemicals**

Industrial chemicals, plastic resins, fertilizer, ethanol, hazardous materials, etc.

**Coal**

Coal. Includes anthracite, bituminous, and lignite coal.

**Coke**

Petroleum coke, coke produced from coal, and coal or coke briquettes

**Crushed Stone, Sand & Gravel**

Crushed or broken stone, sand, aggregate, gravel

**Farm Products Excluding Grain**

Primarily fresh fruits and vegetables. Includes all farm products except grains and soybeans.

**Food Products**

Canned goods, meat and animal products, sugar, beverages, seed and vegetable oils, etc.

**Grain**

Primarily corn, wheat, and soybeans but also includes oats, barley, rye, sorghum, etc.

**Grain Mill Products**

Soybean meal, corn syrup, animal feed, flour, corn starch, milled rice, distiller's dried grains (DDG), etc.

**Iron and Steel Scrap**

Iron and steel (i.e. ferrous) scrap

**Lumber & Wood Products**

Lumber and dimension stock, plywood, etc.; does not include furniture

**Metallic Ores**

Overwhelmingly iron ore, but some aluminum ore, copper ore, etc.

**Motor Vehicles & Parts**

Finished vehicles, parts, auto and truck bodies, etc.

**Nonmetallic Minerals**

Phosphate rock, rock salt, crude sulphur, clay, etc.

**Petroleum & Petroleum Products**

Crude petroleum and products of petroleum refining such as liquefied gases, jet fuel, fuel oil, lubricating oils, asphalt tars, etc.

**Primary Forest Products**

Wood raw materials such as pulpwood and wood chips

**Primary Metal Products**

Primarily iron and steel products; some aluminum, copper, etc. Includes galvanized, and fabricated metal products, except ordnance materials, machinery, and transportation equipment.

**Pulp & Paper Products**

Paperboard, pulpboard, fiberboard, printing paper, pulp, newsprint, boxes, industrial paper, etc.

**Stone, Clay & Glass Products**

Ground nonmetallic minerals or earths, cement, lime, gypsum products, glass products, bricks and other clay products, abrasives, etc.

**Waste & Scrap**

Non-ferrous scrap metal, scrap paper, construction debris, ashes, etc.

**All Other Carloads**

Commodities not included in any of the above categories, excluding intermodal traffic

**MEMO:**

**Economically Sensitive Freight**

A category of rail carload traffic that excludes Coal, Petroleum & Petroleum Products, Grain, and Grain Mill Products.

**AAR Carload Summary Traffic Groups**

**Agricultural Products**

Grain; Farm Products; Grain Mill Products; Food Products

**Automotive**

Motor Vehicles & Parts

**Chemicals**

Chemicals; Petroleum & Petroleum Products

**Coal**

Coal

**Forest Products**

Primary Forest Products; Lumber & Wood Products; Pulp & Paper Products

**Metallic Ores & Metals**

Metallic Ores; Coke; Primary Metal Products; Iron & Steel Scrap

**Non-Metallic Minerals and Products**

Crushed Stone, Sand & Gravel; Non-Metallic Minerals; Stone, Clay & Glass Products

**All Other**

Waste & Non-Ferrous Scrap; All Other Carloads



**Rail Intermodal**

**Revenue Moves**

Rail Intermodal Loadings of Units Originated. Intermodal is defined as a movement of a container or trailer via more than one mode of transportation (i.e. rail + truck or ship + rail or ship + truck). This data tracks intermodal movements that involve the rail mode. Such movements may involve the movement of International and Domestic Containers as well as Trailers via rail.

**Intermodal**

Counts intermodal rail revenue movements, defined as any movement of a container or trailer, whether loaded or empty, that generates revenue for the railroad. Empty movements of rail-owned containers and trailers typically do not generate rail revenue and therefore are not captured in the data.

A revenue movement typically encompasses the entire journey from when the container or trailer is placed on the rail at the originating intermodal terminal to where it is removed from the railcar at the terminating intermodal terminal and may involve movement over more than one railroad.

Long-haul movements passing through rail gateways, such as Chicago, that involve highway transfer between terminals will generally be counted as two separate movements unless traveling on a through bill of lading.

**Intermodal Competitive Index (ICI)**

This index tracks the changes representing five major conditions in the U.S. rail intermodal market. The major conditions are: freight demand, freight rates, truck capacity, rail service, and fuel price. The individual metrics are combined into a single index that measures the competitive posture of domestic intermodal vs. OTR Truck.

A positive score represents favorable conditions for intermodal to compete with truck; a negative score represents reductions in intermodal's ability to gain additional market share from truck.

**Intermodal Market Segments**

These figures track the movement of equipment, not freight. Domestic freight being moved in 20', 40', or 45' containers will be counted as INTERNATIONAL. International cargo transloaded into Domestic Containers or trailers is counted as DOMESTIC.

**- International**

Includes movements of Containers of the following lengths only: 20', 40', and 45'.

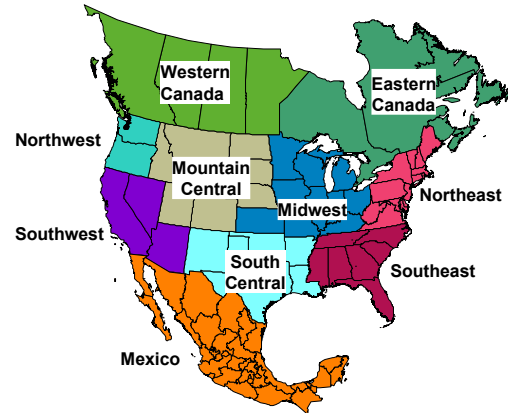
**- Domestic**

Includes movements of Trailers and all other Containers not included in International movements. Trailers of the following lengths: 20', 28', 40', 45', 48', 53'+. Containers of the following lengths: 48', 53'+. Reported movements of 28' containers are converted to 28' trailers, as all 28' containers are reportedly permanently mounted on chassis and moving as trailers.

**Long-Haul Market Share**

Average Length of Haul 550 miles or longer. Designated by Commodity at the 3-Digit STCC level.

**Intermodal Territories**



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